



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## UT Arlington Honor Code

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will only submit work that I personally create or contribute to group collaborations, and reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

The University of Texas at Arlington Online Graduate Catalog is the official version of our catalog, and takes precedence over any printed version of the catalog. This catalog was published in June of 2013, and it supercedes the [2012-2013 Graduate Catalog](#). Students are governed by the catalog under which they were enrolled or, at a student's option, the catalog of any subsequent year in which that student was in residence. Please refer to our [Graduation Requirements and Procedures](#) for more information.

This catalog is a general information electronic publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees, rules, calendars, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled.

Students are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt students from whatever penalties they may incur.

Many departments and programs issue program manuals, procedures and policy manuals, graduate student handbooks and other informational publications for students and faculty in graduate programs. These publications provide detailed and useful information; however, they are not statements of official policy of The University of Texas at Arlington or of The University of Texas System. In all matters, the Rules and Regulations of the Board of Regents of The University of Texas System, the Handbook of Operating Procedures of The University of Texas at Arlington, and the Graduate Catalog of The University of Texas at Arlington shall supersede departmental, program or college publications.

Many of our [previous catalogs](#) are still available online. Catalogs that are no longer online are still available through the [University Archives](#). Please contact the [University Archivist](#) for more information.

Published in June of 2013. This catalog supercedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



APPLY

## RESEARCH. CREATIVITY. INNOVATION.

UTA's graduate programs prepare citizens and leaders to meet the challenges posed by our modern global environment. [About Us](#)

### RESOURCES FOR:

Faculty & Staff

Current Students

International Students

# GRADUATE SCHOOL

UT Arlington is a global research university dedicated to excellence in education, research, service, and outreach.

The graduate school is the home for graduate studies at UT Arlington.

□ **NOTICE**

Our office is currently conducting business online, by phone, and by appointment from 8:00 AM to 5:00 PM, Monday through Friday. In some cases the Graduate School can assist students, faculty and staff directly. However, some issues or concerns fall outside the realm of the Graduate School's authority and assistance must be sought from others. We have [created a guide](#) that shows where to find various kinds of information and assistance.

## A UNIVERSITY OF EXCELLENCE

### R-1

#### DOCTORAL UNIVERSITY

Very High Research Activity designation by the Carnegie Classification of Institutions of Higher Education

### #3

#### FASTEST-GROWING DOCTORAL PUBLIC INSTITUTION

(The Chronicle of Higher Education Almanac, 2019)

**20**

## **BEST GRADUATE PROGRAMS**

U.S. News & World Report's 2018 "Best Graduate Schools" rankings include more than 20 graduate programs at UTA.

**#1**

## **IN TEXAS FOR DEGREES AWARDED TO AFRICAN AMERICAN STUDENTS**

(Diverse: Issues in Higher Education, 2020)

**#1**

## **IN THE NATION FOR VETERANS AND THEIR FAMILIES**

(Military Times, 2020)

**174**

## **MORE THAN 174 GRADUATE STUDY OPTIONS**

Including 125 doctoral and master's degree tracks and 49 graduate certificate programs.

[MORE UTA RANKINGS](#)



# ANNOUNCEMENT S

01. [GRADUATION  
RESOURCES](#)

02. [HEALTH AND  
WELLNESS](#)

## UPCOMING EVENTS

[MORE EVENTS](#)

## RESOURCES FOR PROSPECTIVE STUDENTS

With nine different academic areas offering 71 master's and 29 doctoral degrees—as well as certificate and professional development programs—it's easy to find the right fit.

[GRADUATE ADMISSIONS](#) □

[FUNDING](#) □

[DEGREE PROGRAMS](#) □

## RESOURCES FOR CURRENT STUDENTS

Welcome to the office of Graduate Studies! We offer many opportunities to enrich your graduate education.

[CAREER RESOURCES](#) □

[DISSERTATION COMPLETION RESOURCES](#) □

[RESPONSIBLE CONDUCT OF RESEARCH](#) □

[WORKSHOPS & PROGRAMS](#) □

[CIRTL-UTA](#) □

[MORE RESOURCES](#) □

## RESOURCES FOR FACULTY AND STAFF

Find tools for advising graduate students in addition to useful information for your graduate program.

[ACADEMIC PROGRAM REVIEW](#) □

[GRADUATE ADVISOR RESOURCES](#) □

[UNIVERSITY CATALOG](#) □

### UTA GRADUATE SCHOOL

---

348 University Administration Building  
701 S. Nedderman Drive  
Box 19185  
Arlington, TX 76019 USA

Phone: [817-272-5164](tel:817-272-5164)

## FOLLOW US

---



## IMPORTANT LINKS

---

[CONTACT US](#)

[FACULTY & STAFF RESOURCES](#)



[GRADUATE ADVISORS](#)

[WORKSHOPS & EVENTS](#)

[UNIVERSITY CATALOG](#)

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

Contact

Us

People

Directory

Campus

Maps

Careers

IT Help

UTA

Mobile

App

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington







[APPLY](#)

# IT ALL STARTS HERE

[APPLY FOR ADMISSION](#)

[REQUEST INFO](#)

[MYMAV](#)

[LEARN MORE ABOUT REGISTRATION](#)

## **A UNIVERSITY OF EXCELLENCE**

### **TIER ONE**

**4TH UNIVERSITY IN THE STATE TO  
RECEIVE THE COVETED TEXAS  
TIER ONE DESIGNATION**

(Texas Higher Education Coordinating Board)

**#1**

**IN THE NATION FOR VETERANS  
AND THEIR FAMILIES**

(Military Times, 2021)

**R-1**

**DOCTORAL UNIVERSITY**

(Very High Research Activity designation by the Carnegie  
Classification of Institutions of Higher Education)

**#1**

**IN TEXAS FOR AWARDING  
BACHELORŐS AND MASTERŐS  
DEGREES TO AFRICAN AMERICAN**

## STUDENTS

(Diverse: Issues in Higher Education, 2021)

**18**

## NATIONAL ACADEMY OF INVENTORS FELLOWS

(The most in Texas)

## HSI

## HISPANIC-SERVING INSTITUTION

(Designation by the U.S. Department of Education)

**OUR RANKINGS**

# YOUR SUCCESS STORY IS NEXT

Over 200,000 alumni have written their stories of achievement. Yours could be next.







# WHAT'S HAPPENING AT UTA?

## NEW MAVERICK ORIENTATION

Join us virtually Dec. 6, to learn about campus resources, discover opportunities, connect with other students, and get ready to start classes.

[FRESHMAN ORIENTATION DATES](#)

[ORIENTATION UPDATES](#)

## SPRING 2022 REGISTRATION

It's time to register for spring 2022. Meet with your advisor to make sure you are on track for graduation and ask about taking 15 credit hours to finish.

[HOW TO REGISTER](#)

[ADVISING OFFICES](#)

## FALL 2021 COMMENCEMENT

We are excited to honor our fall 2021 graduates Dec. 16-18 in person at Globe Life Field and through a virtual ceremony. Visit the commencement page to learn more about the upcoming ceremonies.

[IN-PERSON CEREMONIES](#)

[VIRTUAL CEREMONY](#)

## LATEST NEWS

24 November —

23 November —

22 November —

19 November —

17 November —

18 November —

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

Contact

Us

People

Directory

Campus

Maps

Careers

Help

UTA

Mobile

App

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2021 The University of Texas at Arlington







# 2013-2014 Graduate Catalog

## Search Our Catalog

Our search page needs to make a Cross-Site Request to function. Please turn on your web browser's Cross-Site Request capabilities, or refer to our [table of contents](#) below for help in finding the information you need.

### 2013-2014 Graduate Catalog – Home

- **Degree Requirements**
  - **Master's Degree Requirements**
  - **Dual Degree Requirements**
  - **Doctoral Degree Requirements**
- **Fields of Study**
  - **School of Architecture**
    - **Architecture**
    - **Landscape Architecture**
  - **College of Business**
    - **Accounting**
    - **Business Administration**
    - **Economics**
    - **Finance and Real Estate**
    - **Health Care Administration**
    - **Information Systems & Operations Management**
    - **Management**
    - **Marketing**
  - **College of Education and Health Professions**
    - **Curriculum and Instruction**
    - **Educational Leadership and Policy Studies**
    - **Kinesiology**
  - **College of Engineering**
    - **Bioengineering**
    - **Civil Engineering**
    - **Computer Science and Engineering**
    - **Electrical Engineering**
    - **Industrial and Manufacturing Systems Engineering**
    - **Materials Science and Engineering**
    - **Mechanical & Aerospace Engineering**



- **College of Liberal Arts**
  - **Art + Art History**
  - **Communication**
  - **Criminology & Criminal Justice**
  - **English**
  - **History**
  - **Humanities**
  - **Modern Languages**
  - **Linguistics**
  - **Music**
  - **Philosophy & Humanities**
  - **Political Science**
  - **Sociology and Anthropology**
  - **Theatre Arts**
- **College of Nursing**
  - **Nursing - MSN, DNP, & PhD**
- **College of Science**
  - **Biology**
  - **Chemistry & Biochemistry**
  - **Earth and Environmental Sciences**
  - **Interdisciplinary Science**
  - **Mathematics**
  - **Physics**
  - **Psychology**
- **School of Social Work**
  - **Social Work - MSSW & PhD**
- **School of Urban and Public Affairs**
  - **Public Administration**
  - **Urban and Public Affairs**
  - **City and Regional Planning**
- **Admissions Requirements & Procedures**
  - **Proposed Admissions Changes Effective August 2014**
- **General Information & Regulations**
  - **Board of Regents**
  - **Graduate School**
  - **Directory of UT Arlington Offices**
  - **Regulations**
  - **Tuition & Fees**
  - **Financial Aid**
  - **Student Services**
- **Graduate Calendar**
- **Graduate Faculty**

■ **Index**

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax 817.272.1494  
©2013 [The University of Texas at Arlington](#)



# 2012-2013 Graduate Catalog

[Home](#)
[Degree Requirements](#)
[Fields of Study](#)
[Admissions Requirements & Procedures](#)
[General Information & Regulations](#)
[Graduate Calendar](#)
[Graduate Faculty](#)
[Table of Contents](#)
[Index](#)

## UT Arlington Honor Code

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will only submit work that I personally create or contribute to group collaborations, and reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

The University of Texas at Arlington Online Graduate Catalog is the official version of our catalog, and takes precedence over any printed version of the catalog. This catalog was published in July of 2012, and it supercedes the [2011-2012 Graduate Catalog](#). Students are governed by the catalog under which they were enrolled or, at a student's option, the catalog of any subsequent year in which that student was in residence. Please refer to our [Graduation Requirements and Procedures](#) for more information.

This catalog is a general information electronic publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees, rules, calendars, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled.

Students are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt students from whatever penalties they may incur.

Many departments and programs issue program manuals, procedures and policy manuals, graduate student handbooks and other informational publications for students and faculty in graduate programs. These publications provide detailed and useful information; however, they are not statements of official policy of The University of Texas at Arlington or of The University of Texas System. In all matters, the Rules and Regulations of the Board of Regents of The University of Texas System, the Handbook of Operating Procedures of The University of Texas at Arlington, and the Graduate Catalog of The University of Texas at Arlington shall supersede departmental, program or college publications.

Many of our [previous catalogs](#) are still available online. Catalogs that are no longer online are still available through the [University Archives](#). Please contact the [University Archivist](#) for more information.

Published in July of 2012. This catalog supercedes the [2011-2012 Graduate Catalog](#).

The University of Texas at Arlington [Office of Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone 817.272.2688 | Fax 817.272.1494  
 ©2012 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Board of Regents](#)[Graduate School](#)[Directory of UT Arlington Offices](#)[Regulations](#)[Tuition & Fees](#)[Financial Aid](#)[Student Services](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Regulations

### Student Responsibility

### Academic Dishonesty

### Student Conduct and Discipline

### Hazing

- [Campus Solicitations](#)
- [Use of Campus Facilities](#)
- [Vehicle Emissions Inspections](#)
- [Student Travel Policy](#)
- [University Authorized Absences](#)

### Security

- [Gang-Free Zones](#)
- [Student Right-to-Know and Campus Security Act](#)

### Student Educational Records Policy

- [Public Access to Theses and Dissertations](#)

### Attendance, Absences and Observance of Religious Holy Days

- [Attendance](#)
- [Excused Absences](#)

### Administration of the Advanced Degree Programs

- [Committees on Graduate Studies](#)
- [Graduate Advisors](#)

### Grades

- [Grades of I, R and W](#)
- [Grades awarded in research or internship courses \(P, R, F or W\)](#)
- [Grades awarded in three-hour thesis and three- and six-hour dissertation courses \(R, F or W\)](#)
- [Grades awarded in six-hour thesis and nine-hour dissertation courses \(P, R, F or W\)](#)

### Credit Toward Degrees and Certificates

- [Credit for Repeated Courses](#)
- [Course Credit Applied to More Than One Degree](#)
- [Credit for Advanced Undergraduate Coursework](#)
- [Transfer Credit and Course Waivers](#)

- **Earning Graduate Course Credit as a UT Arlington Undergraduate Student**
- **Students Holding Bachelor or Higher Degrees Enrolled as Degreed Undergraduates**
- **Courses That Do Not Provide Graduate Credit**

#### **Academic Standing**

- **Good Standing and Satisfactory Scholastic Progress**
- **Academic Probation**
- **Dismissal**

#### **Grievances**

- **Grievances Related to Grades**
- **Grievances Other Than Grades**
- **Grievances Related to Discrimination or Sexual Harassment**

#### **Registration and Enrollment Requirements**

- **Scheduling Classes**
- **Payment of Fees**
- **Late Registration**
- **Registration and Orientation Requirements for International Students**
- **Course Load (Credit Hour) Requirements**
- **Adding, Dropping and Auditing Courses**

#### **Leave of Absence Policy**

#### **Withdrawal (Resignation) from the University**

#### **Withdrawal as a Result of Military Service**

#### **Change of Graduate Major, Program or Degree Level**

#### **Graduation Requirements and Procedures**

- **Enrollment Requirements for Thesis and Dissertation Courses**
- **Final Semester Requirements**
- **Summary of Final Semester Requirements for Master's Degree Candidates**
- **Summary of Final Semester Requirements for Doctoral Candidates**

#### **Graduate School Deadlines**

#### **Graduate Assistantship/Associateship Policy**

- **Admission Status**
- **English Proficiency**
- **Developmental English Program**
- **Continuation or Renewal of Appointment**
- **Resident Tuition Rates**
- **Course Load**
- **Assignment of Duties**

#### **Additional Employment While an Assistant or Associate**

- **All Students**
- **U.S. Citizen Students**
- **International Students**

#### **Seeking Exceptions to Policies of the Graduate School**

## Course Designation System

### Student Responsibility

Graduate students assume full responsibility for knowledge of all Graduate School and University rules, regulations and deadlines published in the Graduate Catalog and of all departmental and program requirements concerning their degree programs.

### Academic Dishonesty

All students are expected to pursue their academic careers with honesty and integrity. Academic dishonesty includes, but is not limited to, cheating on a test or other coursework, plagiarism (offering the work of another as one's own) and unauthorized collaboration or file sharing with another person. Students found responsible for dishonesty in their academic pursuits are subject to penalties that may range from disciplinary probation, suspension or expulsion from the University. Unauthorized distribution of copyrighted material may subject students to civil and criminal penalties. Information concerning the legal consequences of such violations may be found in *Copyright Law of the United States of America and Related Laws Contained in Title 17 of the United States Code*, Circular 92 (<http://www.copyright.gov/title17/92chap5.html#504>)

In accordance with the Rules and Regulations of the Board of Regents of The University of Texas System (Rule 50101), institutional procedures regarding allegations of academic dishonesty are outlined in Part Two, Chapter 2, of the UT Arlington Handbook of Operating Procedures. This information may be obtained by accessing the Student affairs' Web site at [www.uta.edu/studentaffairs/](http://www.uta.edu/studentaffairs/) or the Student Judicial Affairs' Web site at [www.uta.edu/studentaffairs/judicialaffairs](http://www.uta.edu/studentaffairs/judicialaffairs). Copies of each regulation can be obtained in the Dean of Students' Office on the third floor of Davis Hall.

### Student Conduct and Discipline

The University of Texas at Arlington reserves the right to impose disciplinary penalties, including permanent expulsion, against a student for disciplinary reasons. Information about the rules of conduct and due process procedures is published in Rule 50101 of the *Rules and Regulations* of the Board of Regents of The University of Texas System. The Regents' *Rules and Regulations* may be accessed at <http://www.utsystem.edu/BOR/rules.htm>. This information is also published in the UT Arlington Handbook of Operating Procedures, available online at [www.uta.edu/policy](http://www.uta.edu/policy)

### Hazing

Hazing in state educational institutions is prohibited by both state law (Sections 51.936 & 37.151 et seq., *Texas Education Code*) and by the *Regents' Rules and Regulations* (Rule 50101). Individuals or organizations engaging in hazing could be subject to fines and charged with criminal offenses. Additionally, the law does not affect or in any way restrict the right of the University to enforce its own rules against hazing.

#### Individuals

A person commits an offense if the person:

1. engages in hazing;
2. solicits, encourages, directs, aids or attempts to aid another engaging in hazing;
3. recklessly permits hazing to occur; or
4. has firsthand knowledge of the planning of a specific hazing incident involving a student in an educational institution, or has firsthand knowledge that a specific hazing incident has occurred, and knowingly fails to report that knowledge in writing to the dean of students or other appropriate official of the institution.

#### Organizations

An organization commits an offense if the organization condones or encourages hazing or if an

officer or any combination of members, pledges, or alumni of the organization commits or assists in the commission of hazing.

### Defintion

The term "hazing" is broadly defined by statute to mean any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in an organization. Hazing includes, but is not limited to:

- any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of a harmful substance on the body, or similar activity;
- any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subject the student to unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
- any activity involving the consumption of a food, liquid, alcoholic beverage, liquor, drug or other substance that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
- any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame or humiliation, that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to acts described in this subdivision; and
- any activity that induces, causes, or requires the student to perform a duty or task that involves a violation of the Penal Code.

The fact that a person consented to or acquiesced in a hazing activity is not a defense to prosecution.

The University of Texas System Board of Regents' *Rules and Regulations*, Rule 50101, Sec. 2.8 provides that, "Any student who, acting singly or in concert with others, engages in hazing is subject to discipline. Hazing in State educational institutions is prohibited by State law (*Texas Education Code*, Section 51.936). Hazing with or without the consent of a student whether on or off campus is prohibited, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. Initiations or activities of organizations may include no feature that is dangerous, harmful, or degrading to the student, and a violation of this prohibition renders both the organization and participating individuals subject to discipline."

Hazing with or without the consent of a student is prohibited by the System, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. Initiations or activities by organizations may include no feature which is dangerous, harmful, or degrading to the student, and a violation of this prohibition renders both the organization and participating individuals subject to discipline. Activities which under certain conditions constitute acts that are dangerous, harmful, or degrading, in violation of Rules include but are not limited to: calisthenics, such as sit-ups, push-ups, or any other form of physical exercise; total or partial nudity at any time; the eating or ingestion of any unwanted substance; the wearing or carrying of any obscene or physically burdensome article; paddle swats, including the trading of swats; pushing, shoving, tackling, or any other physical contact; throwing oil, syrup, flour, or any harmful substance on a person; rat court, kangaroo court, or other individual interrogation; forced consumption of alcoholic beverages either by threats or peer pressure; lineups intended to demean or intimidate; transportation and abandonment (road trips, kidnaps, walks, rides, drops); confining individuals in an area that is uncomfortable or dangerous (hot box effect, high temperature, too small); any type of personal servitude that is demeaning or of personal benefit to the individual members; wearing of embarrassing or uncomfortable clothing; assigning pranks such as stealing; painting objects; harassing other organizations; intentionally messing up the house or room for clean up; demeaning names; yelling and screaming; and requiring boxing



matches or fights for entertainment.

### Immunity

In an effort to encourage reporting of hazing incidents, the law grants immunity from civil or criminal liability to any person who reports a specific hazing event in good faith and without malice to the dean of students or other appropriate official of the institution and immunizes that person for participation in any judicial proceeding resulting from that report. Additionally, a doctor or other medical practitioner who treats a student who may have been subjected to hazing **may** make a good faith report of the suspected hazing activities to police or other law enforcement officials and is immune from civil or other liability that might otherwise be imposed or incurred as a result of the report. The penalty for failure to report is a fine of up to \$1,000, up to 180 days in jail, or both. Penalties for other hazing offenses vary according to the severity of the injury which results and include fines from \$500 to \$10,000 and/or confinement for up to two years.

### Campus Solicitations

"Solicitation," as defined in Rule 80103 of the Rules and Regulations of the Board of Regents of The University of Texas System, means the sale, lease, rental or offer for sale, lease, rental of any property, product, merchandise, publication or service, whether for immediate or future delivery, an oral statement or the distribution or display of printed material, merchandise or products that is designed to encourage the purchase, use or rental of any property, product, merchandise, publication or service, the receipt of or request for any gift or contribution, or the request to support or oppose or to vote for or against a candidate, issue or proposition appearing on the ballot at any election held pursuant to state or federal law or local ordinances. All solicitations on the UT Arlington campus must conform to the Regents' Rules and Regulations, copies of which are available in the offices of the president, vice presidents, academic deans, numerous other administrative offices and the Central Library. The Regents' Rules and Regulations also may be accessed at the following Web site: [www.utsystem.edu/bor/rules.htm](http://www.utsystem.edu/bor/rules.htm).

### Use of Campus Facilities

The property, buildings or facilities owned or controlled by The University of Texas at Arlington are not open for assembly, speech or other activities as are the public streets, sidewalks and parks. No person, organization, group, association or corporation may use property, buildings or facilities owned or controlled by UT Arlington for any purpose other than in the course of the regular programs or activities related to the University's role and mission unless authorized by and conducted in compliance with the Rules and Regulations of the Board of Regents of The University of Texas System, approved rules and regulations of UT Arlington, and applicable federal, state and local laws and regulations.

### Vehicle Emissions Inspections

Vehicles parking or driving on campus must comply with vehicle emissions inspections standards pursuant to Subchapter F, Chapter 548 of the Texas Transportation Code and vehicle registration laws, and must display appropriate inspection stickers. Non-resident students, those who reside in another state and whose vehicle is registered in another state, while attending this University, will be required by the State of Texas to submit their vehicle for emissions inspection each year prior to receiving a parking permit. Vehicles not in compliance will be ticketed.

### Student Travel Policy

Before any student organization travels, it is beneficial to visit the Office of Student Governance and Organizations to receive information about liability and to consider using release forms that are available.

However, if the trip is funded by the University (including Program Assistance Funds), is more than 25 miles from the University, and the vehicle is owned or leased by the University, or if attendance is required by a student organization, then the organization must submit the Student/Group Travel Form and the University Request for Travel Authorization at least 10 days prior to the date of travel. All forms and additional information is available in the Office of Student Governance and



Organizations. For additional information, see the UT Arlington Handbook of Operating Procedures, Part II, Subchapter 6-600.

## University Authorized Absences

The Office of the Vice President for Student Affairs provides lists of students who have absences authorized by the University (e.g., participation in athletic events or scholastic activities that are officially-sponsored University functions these are primarily activities that are funded by the University). The student must contact the instructor one week in advance of the excused absence and arrange with the instructor to make up missed work or missed examinations. Instructors will provide those students an opportunity to make up the work or otherwise adjust the grading to ensure that the student is not penalized for the absence. Failure to notify the instructor or failure to comply with the arrangements to make up the work will void the excused absence.

## Security

### Gang-Free Zones

To promote campus safety and deter crime, premises owned, rented or leased by The University of Texas at Arlington, and areas within 1,000 feet of the premises are "gang-free" zones. Certain criminal offenses, including those involving gang-related crimes, will be enhanced to the next highest category of offense if committed in a gang-free zone by an individual 17 years or older. See Texas Penal Code, Section 71.028.

### Student Right-to-Know and Campus Security Act

In compliance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, formerly the Student Right-to-Know and Campus Security Act (P.L. 101-542, as amended), The University of Texas at Arlington publishes specified campus crime statistics and campus security policies through the Office of the Chief of the University Police.

Information on Campus safety and security policies may be found at [policy.uta.edu/index.php?navid=17492](http://policy.uta.edu/index.php?navid=17492) and [www.uta.edu/policy/documents/police/campus-safety-report.pdf](http://www.uta.edu/policy/documents/police/campus-safety-report.pdf). Additional information on policies and procedures pertaining to safety may be found at [www.uta.edu/policy/procedure](http://www.uta.edu/policy/procedure).

This information includes:

- Procedures for reporting criminal actions or other emergencies occurring on campus.
- Policies concerning security of and access to campus facilities, including campus residences; campus law enforcement authority and responsibilities.
- A description of programs designed to inform students and employees about the prevention of crimes, and campus security procedures.
- The policy of monitoring and recording of students' criminal activity occurring at off-campus locations of student organizations officially recognized by the institution.
- The policy regarding the possession, use and sale of alcoholic beverages and illegal drugs, and enforcement of federal and state drug and drinking laws.
- A description of drug or alcohol-abuse education programs.
- Sexual assault programs to prevent sex offenses, and procedures to follow when a sex offense occurs.
- Fire Safety and procedures Gang free zones and consequences of engaging in organized criminal activities in these zones
- Policy on emergency response and emergency notification procedures involving immediate threat and campus evacuation.
- Missing student information

Crime statistics may be accessed on the University Police Web site at [policy.uta.edu/index.php?navid=17496&resid=17826](http://policy.uta.edu/index.php?navid=17496&resid=17826).

## Student Educational Records Policy

Students may have access to their own educational records during regular office hours by contacting the person or the office that maintains these records. A student may appear in person or make a written request for a copy of the record to be mailed. Another person may not see a student's educational records unless the student gives written permission. One exception allows a parent or guardian who is providing one-half or more of the student's financial support to obtain the educational record. Faculty and staff members of the University have access to student educational records in performance of regular duties. If an educational record contains information on more than one student, then a student desiring access may review only parts pertaining to that student.

Students may have official copies of their UT Arlington transcripts mailed to other institutions or may obtain copies for their own use. A student must sign a request form in the Registrar's Office or mail a signed, written request to release the transcript. Transcripts also may be requested through the UT Arlington Web page at [www.uta.edu/transcripts](http://www.uta.edu/transcripts). Requests will not be accepted by telephone or from persons other than the student without that student's written permission.

The **Family Educational Rights and Privacy Act of 1974** provides that a university may release directory-type information about students. The information released may include the following items: the student's name, address, electronic mail address, telephone number, date of birth, major field of study, participation in officially recognized activities and sports, weight and height if a member of an athletic team, dates of attendance, degrees and awards received, and the last educational institution attended. Each year UT Arlington publishes a student directory that contains the student's name, major field of study and telephone number. The law states that a student has the right to withhold this information from the public and other students. Directory-type information may be withheld by editing your profile in MyMav. Unless this form is completed before the Census Date of the fall semester, this data will be released as public information.

Students have the right to challenge the content of their educational records to ensure that their records are not inaccurate, misleading or in violation of other rights of students. This allows students an opportunity to correct inaccurate or misleading information and permits written explanation concerning the content of the records. Any evidence regarding an inaccurate or misleading record should be presented to the individual in charge of the office where the record is maintained.

A more detailed statement of the records policy is available in the Office of the Senior Vice President for Finance and Administration, Room 300, Davis Hall.

### Public Access to Theses and Dissertations

Theses and dissertations completed by UT Arlington students are archived electronically with UMI/Proquest and in the Central Library. Thus, these documents are available to the interested public, unless the student's thesis or dissertation supervisor formally requests that public access be temporarily blocked for reasons such as pending patent applications, contractual restrictions, or other issues that would make immediate publication inappropriate or illegal. Public access to this information may be blocked for up to two years. Contact the Office of Graduate Studies Thesis and Dissertation Specialist for additional information.

## Attendance, Absences and Observance of Religious Holy Days

### Attendance

Regular attendance at all class meetings is expected. Instructors are responsible for implementing attendance policy and must notify students of any special attendance requirements. Special regulations of colleges and schools required by the unique nature of their programs of study may be enacted through the normal approval process. These special regulations may not conflict with University regulations on class attendance and absence. An instructor is under no obligation to accommodate students who are absent or miss work without prior notification and make-up arrangements.

Students will be allowed an excused absence under circumstances described below. The student must notify the instructor in writing at least one week in advance of the start of the excused absence and arrange with the instructor to make up missed work or missed examinations. Instructors will allow students an opportunity to make up the work and examinations within a reasonable time period following the absence or otherwise adjust the grading to ensure that the student is not penalized for the absence, provided that the student has properly notified the instructor.

Instructors are under no obligation to accommodate students who are absent or miss work without prior notification and make-up arrangements. Students who have properly notified the instructor, will not be penalized for the absence. However, the instructor may respond appropriately if the student fails to complete the assignment or examination satisfactorily within the time limit following the absence set by prior arrangement.

If there is disagreement between student and faculty member regarding what constitutes a reasonable amount of time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the Office of the Provost. The decision of the Provost is final.

## Excused Absences

### University Authorized Absences

The Office of the Vice President for Student Affairs provides lists of students who have absences authorized by the University (e.g., participation in athletic events or scholastic activities that are officially sponsored University functions-- those are primarily activities that are funded by the University).

### Absence for Military Service

In accordance with section 51.9111 of Texas Education Code, a student is excused for attending classes or engaging in other required activities, including examinations, if he or she is called to active military service of reasonably brief duration. The student will be allowed a reasonable amount of time after the absence to complete assignments and take examinations.

### Observance of Religious Holy Days

A student who misses an examination, work assignment or other project because of an observance of a religious holy day will be given the opportunity to complete the work missed within a reasonable time after the absence.

A "religious holy day" means a holy day by a religion whose places of worship are exempt from property taxation under Section 11.20 of the Tax Code. The period of the excused absence will include time for any travel needed to fulfill that religious obligation. If the instructor and the student disagree about whether an absence constitutes a "religious holy day" as defined above, either the student or the instructor may request a ruling from the Office of the Provost. The decision of the Provost is final.

## Administration of the Advanced Degree Programs

### Committees on Graduate Studies

Each graduate program is governed by a Committee on Graduate Studies. The committee is composed of all full members of the graduate faculty in that program. Graduate faculty from allied fields may serve on the committee, when appropriate. In an interdepartmental program, the Committee on Graduate Studies is appointed by the Dean of Graduate Studies.

### Graduate Advisors

Each graduate program has a Graduate Advisor. The Graduate Advisor represents the Dean of

Graduate Studies and the Committee on Graduate Studies in matters pertaining to advising graduate students in their academic areas. The Graduate Advisor's functions include clearing of students for registration, acting upon requests for drops, adds, section changes and special examinations; maintaining graduate student records; and advising graduate students about their degree plans. The name and contact information for each Graduate Advisor is listed at the beginning of each departmental or program description in this catalog.

## Grades

Types of grades that may be assigned in courses at the University of Texas at Arlington (Valid Grades) consist of A, B, C, D, F, P, I, R, and W. Instructors may only assign grades listed on the Grade Roster for a given course. Students uncertain about the grading policy in a course should consult their instructor at the beginning of the semester for information. Valid Grades for independent study, conference, seminar, and readings courses vary widely among departments; therefore, a statement on Valid Grades and special grading policies, if any, is given at the beginning of the course descriptions for each program in this catalog.

### Grades of I, R and W

**Grade of I:** The grade of I designates the grade of incomplete. A graduate student unable to complete all assigned work in a class in the semester in which it was taken may, at the discretion of the instructor, receive an I grade. *This grade is not given automatically* when a student does not complete all assigned work. It is the responsibility of the student to make arrangements with the instructor to secure a grade of I before the semester ends. The grade of I will remain as part of the student's academic record until the work is completed and a final grade awarded. To change a grade of I to another grade, the instructor must submit a change of grade form. A grade of I does not carry credit value. This grade is not awarded in research, internship, thesis or dissertation courses.

**Grade of R:** The grade of R designates the grade of research in progress and is given only in research, internship, thesis or dissertation courses. A graduate student unable to complete assignments in one of these courses may, at the discretion of the instructor, receive an R grade. The R grade is a permanent grade and does not carry credit value. To receive academic credit in an R-graded course, a student *must re-register for and successfully complete the course* earning a valid passing grade for the course. Grading policy in some courses may change during the period covered by this catalog. Grading policy for each course each semester is printed on the instructor's class roll. Students should verify the grading policy with the instructor at the beginning of each semester.

**Grade of W:** A grade of W may be assigned if a student chooses to withdraw from a class after Census date, but prior to the last date to drop posted in the University's Academic Calendar. *However, the grade of W is not automatically awarded.* Graduate students must consult with their Graduate Advisor before withdrawing from a class. Further, the student must secure the permission of the instructor and be passing the course (have a grade of A, B, C or P) at the time they intend to withdraw to receive a grade of W.

### Grades awarded in research or internship courses (P, R, F or W)

Students enrolled in most research or internship courses will receive a pass (P) when the project or internship is completed, or a grade of research in progress (R), fail (F) or withdrawn (W).

### Grades awarded in three-hour (5398) Thesis and three-hour (6399) Dissertation courses (R, F or W)

The only grades awarded in these courses are research in progress (R), fail (F) or withdrawn (W).

### Grades awarded in six-hour (5698) Thesis, six-hour (6699) Dissertation, nine-hour (6999) Dissertation and Dissertation Completion (7399) courses (P, R, F or W)

The grades pass (P), research in progress (R), fail (F) and withdrawn (W) may be awarded in these courses. The grade of P can be awarded when the thesis or dissertation is passed unconditionally by the supervising committee. Accordingly, a master's student must be enrolled in a 5699 Thesis course and doctoral students must enroll in the appropriate 6699, 6999 Dissertation or 7399 Dissertation Completion course the semester in which the thesis or dissertation is defended. Students typically enroll in these courses defend and apply for graduation in the same semester. The Dissertation Completion course (7399) may only be taken once and cannot be repeated.

## Credit Toward Degrees and Certificates

Only courses completed with a grade of A, B, C, or P can satisfy graduate degree or certificate requirements. However, courses in which grades of D or F are earned will affect a student's grade-point average. A student must have a B (3.0) grade-point average in courses included in their degree plan and a B (3.0) average in all work undertaken as a graduate student to have credits applied toward a graduate degree or certificate.

### Credit for Repeated Courses

A student may repeat a course only if that course is specifically designated in this catalog as one that can be repeated for credit. A student who fails to receive credit (earns a grade of D or F) may repeat the course in order to obtain credit, in which case the grades for both attempts will count in computing the student's overall grade-point average. No student will be allowed to repeat a course in order to change a passing grade of C or higher.

### Course Credit Applied to More Than One Degree

No course that has been applied to any degree, at any graduate or undergraduate institution, may be applied to any other degree, either directly or by substitution except in approved dual degree or approved fast track programs. The amount of shared credit between degrees in dual degree programs is limited and varies with the total number of hours needed to complete both degrees. See Dual Degree Programs in the Advanced Degrees and Requirements section of this catalog for details. Similarly, the amount of credit that can be shared in fast track programs is also limited. Details may be found in descriptions provided by participating programs elsewhere in this catalog.

### Credit for Advanced Undergraduate Coursework

Up to nine hours of advanced undergraduate credit from UT Arlington or another institution may be applied to a master's degree program if the hours have not been used to earn a previous degree and have the approval of the appropriate Graduate Studies Committee and the Dean of Graduate Studies. Approved fast track programs may allow dual credit.

### Transfer Credit and Course Waivers

#### Transfer Credit Applied to Master's Degrees

Equivalent coursework completed at other institutions of recognized standing may be transferred to a master's degree program after evaluation and approval. Transferred courses do not appear on the UT Arlington Official Transcript and grades earned in transferred courses are not included in calculating a student's UT Arlington graduate grade-point average.

No more than nine hours of transfer credit will be granted except in the professional master's programs that require more than 36 hours of coursework. In such programs, the number of transfer hours is limited to 25 percent of the total program hours. This rule does not invalidate written agreements between graduate programs and the Graduate School or agreements that are stated elsewhere in this catalog. Transfer credit will be accepted only for organized courses in which the student received a letter grade of B or higher and an official transcript showing the course(s) and grade(s) is required.

Courses from other universities taken after a student has been admitted into a master's program at UT Arlington must be approved in advance by the appropriate Committee on Graduate Studies



and is reviewed by the Graduate School. All work submitted for transfer credit must have been completed no more than six years before completion of a graduate program at UT Arlington.

To request transfer credit, students must complete the Transfer of Graduate Credit form and obtain approvals from the appropriate graduate advisor and chair of the Committee on Graduate Studies and final approval from the Graduate Dean. The form is available online at the [Graduate School web site](#).

### **Waiving Courses Required for Doctoral Degrees**

Graduate-level coursework completed in the student's major area of doctoral study at institutions of recognized standing that grant doctoral degrees in those subject areas may serve to establish the student's competency in equivalent UT Arlington courses. Competency demonstrated by successful completion of equivalent courses may provide a basis for waiving some UT Arlington course requirements and the credit hours associated with those courses. Waivers must be recommended by the student's graduate advisor and current supervising professor and their recommendation must be approved by both the Committee on Graduate Studies of the student's major area and the Office of Graduate Studies. Only courses in which the student has earned a B (3.0) or better (or a P if the UTA course is also graded P/F) will be considered for purposes of a waiver. In no case will final semester Dissertation course (6x99 or 7399) requirements be waived. Waived courses must be shown on the student's academic plan.

### **Transfer Credit Applied to Graduate Certificates**

Equivalent coursework completed at other institutions of recognized standing may be transferred to a graduate certificate program after evaluation and approval of the graduate advisor, the appropriate Committee on Graduate Studies and the Dean of Graduate Studies. The number of transfer units is limited to 50% of the total units required for the certificate, except in certificate programs that exceed 15 units, in which case 12 of those units must be taken in residence. This rule does not invalidate written agreements between graduate certificate programs and the Graduate School or agreements that are stated elsewhere in this catalog. Transfer credit will be accepted only for organized courses in which the student received a letter grade of B or higher and an official transcript showing the course(s) and grade(s) is required.

Courses from other universities taken after a student has been admitted into a graduate certificate program at UT Arlington must be approved in advance by the graduate advisor, the appropriate Committee on Graduate Studies and the Dean of Graduate Studies. The form is available online at the [Graduate School web site](#).

Grades earned in transferred courses are not included in calculating a student's UT Arlington graduate grade-point average.

### **Earning Graduate Course Credit as a UT Arlington Undergraduate Student**

Courses taken in undergraduate status may not be applied directly to a doctoral program.

Some departments do not permit students to enroll in graduate courses unless they have been admitted to Graduate School. Others allow students enrolled as undergraduates to take a limited amount of graduate coursework under the conditions described below.

All undergraduate students should consult with the appropriate Graduate Advisor before attempting to register for graduate courses.

#### **Advanced UT Arlington Undergraduates (Current Seniors)**

An undergraduate student at the University of Texas at Arlington may not use graduate courses (numbered 5000 and above) to fulfill undergraduate degree requirements except as part of an approved fast track program. However, an undergraduate needing no more than 12 hours in one semester (six semester hours in one summer session) to complete all the requirements for a bachelor's degree may register for graduate courses and apply them toward a master's degree at UT Arlington under the following conditions:

1. In no case may a student previously dismissed from or denied admission to the Graduate

School enroll in graduate courses or reserve courses for graduate credit.

2. All work for undergraduate credit must be completed during that semester or summer session in which the student enrolls in graduate courses.
3. Total registration for all work may not exceed 15 semester hours in a semester (or 12 semester hours in the summer sessions).
4. The student must submit to the Graduate Advisor a "Reservation of Courses for Graduate Credit by Undergraduate Students" form (available from Graduate Advisors). The reservation must be approved by the Graduate Advisor and the Dean of Graduate Studies, and the Registrar must certify that the reserved credit will not be applied to the student's undergraduate degree requirements. This form must be submitted in accordance with the deadlines printed in the [Graduate School Calendar](#) in this catalog.
5. The student must have at least a 3.0 undergraduate GPA to be eligible to enroll in a graduate course and to reserve it for graduate degree credit.
6. Courses taken at UT Arlington and reserved for graduate credit may be applied to a master's degree program only if a grade of A, B, C, or P was earned.
7. Credit is officially accepted for application to a graduate program when a student is unconditionally admitted to the Graduate School.
8. A maximum of 12 semester hours of graduate level courses may be reserved.

### Students Holding Bachelor or Higher Degrees Enrolled as Degreed Undergraduates

Students who have completed their undergraduate studies and have been awarded their bachelor's degree may enroll as degreed undergraduates in graduate-level course work and receive graduate credit at UT Arlington under the following conditions:

1. Courses taken at UT Arlington and reserved for graduate credit may be applied to a master's degree program only if a grade of A, B, C, or P was earned.
2. No more than 12 semester hours of credit earned while a degreed undergraduate may be applied for credit toward a master's degree. Students must file a request, approved by the Graduate Advisor, the Committee on Graduate Studies, and the Dean of Graduate Studies to apply such credits toward a graduate degree. The form is available online at the [Graduate School web site](#).
3. All courses that are applied to a master's degree must have been completed no more than five years before enrollment in a graduate program at UT Arlington. If the student has completed more than 12 semester hours of graduate courses in undergraduate status, only graduate courses completed within five years of enrollment in a graduate program at UT Arlington will become part of the graduate record and considered in computing the student's grade-point average.
4. A student may elect to apply all graduate courses completed in the last five years toward their degree or to apply none of this work. Selective application of courses is not permitted. If any courses are applied for credit toward a master's degree, all courses completed within the last five years will become part of the graduate record.

### Graduate Credit for Extension Classes

Work done in extension classes may be applied toward an advanced degree under the same conditions that apply to transfer work, except that credit for extension work is limited to six credit hours.

### Courses That Do Not Provide Graduate Credit

#### Personal Improvement Courses

Personal improvement individual or group music or art lessons and exercise and sports activities courses can not be used for the following: 1) to satisfy graduate degree requirements; 2) meet Graduate School enrollment requirements; 3) in computation of graduate grade-point averages or determination of academic probation or academic good standing in Graduate School; 4) in

calculation of grade-point averages for the purpose of admission to a Graduate Program or for certification for graduation from a Graduate Program.

### **Audited Classes**

University credit is not granted for audited classes and audited classes will not satisfy enrollment requirements.

### **Correspondence Courses**

Correspondence courses are not accepted for graduate credit.

### **Credit by Examination**

Credit by examination may not be used for graduate credit and no such credit, graduate or undergraduate may appear on graduate student transcripts.

## **Academic Standing**

### **Good Standing and Satisfactory Scholastic Progress**

Graduate students are considered to be in good academic standing and making satisfactory progress in a degree or certificate program if they 1) meet all admission conditions within the time required 2) have a B (3.0) or better grade-point average on all coursework undertaken while in Graduate School and 3) have a B (3.0) or better grade-point average in courses needed to satisfy degree requirements by the end of the semester in which they intend to graduate. Students must be in good academic standing by the end of their final semester in order to receive an advanced degree or certificate from UT Arlington. Refer to the section "Courses Not Providing Graduate Credit" for an explanation of courses that do not provide graduate credit and will not be used to determine academic standing or to satisfy degree requirements.

### **Academic Probation**

A graduate student whose cumulative grade point average falls below a 3.00 in all graduate courses, be they graduate or undergraduate level, taken while enrolled as a UT Arlington graduate student will be placed on academic probation. The student must attain a grade point average of at least 3.00 in the next semester he or she is enrolled or be subject to dismissal. Undergraduate courses or graduate courses graded P, R, I or W or courses that do not provide graduate credit (see Courses Not Providing Graduate Credit) cannot be used to remove the condition of academic probation.

### **Dismissal**

Students have the initial responsibility to recognize when they are having academic difficulties and are expected to initiate steps to resolve the problem. When a student is in academic difficulty, and dependent upon the severity of the problem, the student may receive an oral warning and/or written statement of the problem and required corrective actions from his or her program. Failure to take these corrective actions can result in termination from the degree program.

A student who has been dismissed from the Graduate School for failure to remove the condition of academic probation by meeting the 3.0 grade-point average requirement may be readmitted for further graduate study in the same or in a different program only if a Petition to the Graduate Faculty has been approved by the appropriate Committee on Graduate Studies and the Dean of Graduate Studies.

A student can be dismissed from a degree program not only for failure to maintain an adequate grade point average, but also for such reasons as unsatisfactory progress toward a degree as defined by the department or program, inability to pass a comprehensive examination, failure to prepare or to defend a thesis or dissertation in a satisfactory manner or complete thesis or dissertation work in an acceptable amount of time. Termination due to inadequate academic progress is a decision made by the program's or department's Graduate Advisor and Graduate



Studies Committee. A student's thesis/dissertation committee may recommend termination for failure to prepare a thesis/dissertation proposal, prospectus or final draft in a satisfactory manner or failure to complete work in an acceptable amount of time to the program's Graduate Advisor and Graduate Studies Committee. Such decisions to terminate a student must be communicated to the Dean of Graduate Studies by the Chairman of the Graduate Studies Committee with required justification. The Graduate Dean will review the case make the final decision. The student may continue enrollment until the Dean finalizes the termination decision.

Students failing to pass a comprehensive examination or thesis/dissertation defense may be terminated upon the recommendation of the examining committee. Such decisions are indicated on the Comprehensive Examination Report or Final Defense Report which are returned to the Dean of Graduate Studies. The Graduate Dean will notify the student formally of the program's or department's decision.

## Grievances

### Grievances Related to Grades

It is the obligation of the student, in attempting to resolve any student grievance regarding grades, first to make a serious effort to resolve the matter with the instructor with whom the grievance originated. Individual instructors retain primary responsibility for assigning grades. The instructor's judgment is final unless compelling evidence shows preferential treatment or procedural irregularities. If students wish to appeal, their requests must be submitted in writing on an Academic Grievance Form available in departmental or program offices to the department chair or program director. Before considering a grievance, the department chair or program director will refer the issue to a departmental or program committee of graduate faculty. If the committee cannot reach a decision acceptable to the parties involved, the department chair or program director will issue a decision on the grievance. If students are dissatisfied with the chair or director's decision, they may appeal the case to the academic dean. If they are dissatisfied with the academic dean's decision, they may appeal it to the Dean of Graduate Studies. Students have one year from the day grades are posted to initiate a grievance concerning a grade. (For grievances other than those related to grades, see the catalog entry titled [Grievances Other Than Grades](#).)

### Grievances Other Than Grades

In attempting to resolve graduate student grievances, the student must first make a serious effort to resolve the matter with the individual with whom the grievance originated. Grievances involving matters other than grades are appealed to the department chair or office director, then to the Dean of Graduate Studies (except in personnel matters, in which cases the appeal is to the Provost unless questions regarding a graduate assistant or graduate associate are involved), Vice President for Business Affairs, or Vice President for Undergraduate Academic and Student Affairs, as determined by the nature of the grievance. If the matter remains unresolved at this level, the student may appeal to the Provost. The decision of the Provost is final. (For grievances involving grades, see the catalog entry titled [Grievances Related to Grades](#).)

### Grievances Related to Discrimination or Sexual Harassment

Grievances alleging discrimination or sexual harassment committed by faculty, staff or students should be referred to the Office of Equal Opportunity and Affirmative Action for investigation. Their web site provides information on what constitutes discrimination or harassment and what steps students, faculty and staff may follow to address such situations and receive protection under University policy and State and Federal law.

## Registration and Enrollment Requirements for All Students

To attend The University of Texas at Arlington any given semester, a student must register and pay fees. All registration at UT Arlington may be done over the Web at [www.uta.edu/registrar](http://www.uta.edu/registrar). The current semester's Schedule of Classes gives the exact dates and times for registration and should be consulted each semester, not only for registration information but advising instructions

as well. The Spring Schedule of Classes is available in mid-October; the Summer/Fall Schedule of Classes is available in mid-March. New students, most readmitted former students and continuing students in certain majors must be advised. If advising is required, it must be done prior to registration.

### **Required Bacterial Meningitis Vaccination**

Effective January 1st, 2012, Texas state law (Section [51.9192](#) of the Texas Education Code) requires that first-time students, students transferring from another institution and students who are re-enrolling following an absence of at least one fall or spring semester who are under 30 years of age as of the first class day of the term be vaccinated against bacterial meningitis. Students under the age of 30 who plan to audit a course also must comply with this law. All incoming students and students returning after an absence of at least one fall or spring semester who are under 30 years old must submit documentation of immunization against bacterial meningitis. Students who fail to meet this requirement will be dropped from courses.

Students who are enrolled in only online courses that are fully online and that do not meet on campus are exempt from this requirement.

For information regarding the Texas meningitis vaccination law and required documentation of immunization, please visit [www.uta.edu/meningitis](http://www.uta.edu/meningitis).

### **Scheduling Classes**

All students must register to enroll in and attend classes. Students who are no longer eligible for enrollment at the start of the semester will have their registration canceled and their tuition and fees refunded.

### **Payment of Fees**

Refer to the Tuition, Fees, and Charges section of this catalog for registration billing and payment or access [www.uta.edu/fees](http://www.uta.edu/fees).

### **Late Registration**

Late registration is held each semester for students who are unable to register on their regular dates. Late registration takes place on the Web. Students should try to register on their earliest date since classes close during late registration and a late fee is added.

### **Additional Registration and Orientation Requirements for International Students**

International students must meet registration and enrollment requirements described in the preceding section titled **Registration and enrollment requirements for All Students**. In addition, international graduate students must satisfy the following requirements.

#### **Orientation**

All new international graduate students must attend an orientation at the beginning of their initial semester at The University of Texas at Arlington. Those who do not attend the International Student Orientation before registration will not be allowed to register during the regular registration period and must attend a makeup orientation on the morning of the first class day, before registering and being assessed a late fee. For more information please contact the Office of International Education at 817.272.2355 .

#### **Required Insurance**

International graduate students are required to purchase The University of Texas at Arlington Student Health Insurance Plan. After the initial semester of enrollment, the insurance premium will be added automatically to the student's fees. If the student has health insurance coverage through 1) an employer of the student, spouse, or parents, or 2) U.S. or home-country government sponsorship, the student Health Insurance Plan may be waived. For outside insurance to qualify

for the waiver, the coverage must include repatriation and medical evacuation benefits. If it does not cover repatriation and medical evacuation, and most U.S. policies will not, a supplemental policy must be purchased for that coverage. Students who wish to apply for the waiver must come to the Office of International Education prior to registration to show proof of outside coverage and documentation in English describing benefits provided by the non-UT Arlington insurance plan. For more information please contact the Office of International Education at 817.272.2355.

### **Required Tuberculosis Screening**

All new Non-U.S. Citizen/Non-Permanent Resident and Intensive English students must meet the following requirements in order to enroll in classes and remain enrolled in the University.

1. Upon arrival to the University for classes, each prospective student must have a Tuberculosis screening and/or chest x-ray in order to enroll. These may be obtained from the UT Arlington Health Services.
2. Those tested must return to UT Arlington Health Services to have the test read between 48 and 72 hours after administration (if not read within this time frame, the student must wait 10 days and then be re-tested). If the TB test is positive, the student must have a chest x-ray performed and the results received at UT Arlington Health Services within a 25-class-day time limit.
3. The testing or chest x-ray must be performed even if the student was immunized with BCG (a vaccine for TB). If the testing process and subsequent diagnostic exam are not completed and submitted to the UT Arlington Health Services by the 25th class day, the student will be dropped from classes and barred from reinstatement. For more information, please call Health Services Immunization Clinic at 817.272.7143.

### **Course Load (Credit Hour) Requirements**

#### **Continuous Enrollment Policy**

Graduate students must enroll in at least one credit hour of work related to their degree each long semester (Fall and Spring) in order to remain classified as an enrolled student. Some programs may specify a higher minimum enrollment requirement in their Handbook for Graduate Students or other published documents. Enrollment in Summer Sessions is not required, and students who do not enroll in summer will not be considered in violation of the continuous enrollment policy. However, students are required to register for appropriate courses in every semester or summer term in which they expect to receive assistance, use the facilities of the university, take diagnostic or comprehensive examinations or defend theses or dissertations. The minimum enrollment requirements for holding graduate assistantships or fellowships or the requirements of the enrollment requirements of other programs, offices and agencies such as the Veterans Administration, U.S. Citizenship and Immigration Services, and federal financial aid and certain loan programs, must be met. It is the student's responsibility to determine the enrollment requirements of such entities.

#### **All International Students**

International students must be enrolled for a minimum of 9 semester hours during each regular semester (Fall and Spring).

#### **Full-time Enrollment and Maximum Hours**

Full-time students are expected to enroll in at least 9 hours in a regular semester. The minimum full-time course load during the summer sessions is 6 hours. The maximum course load for full-time graduate students is 15 semester hours in a regular semester and 12 hours in a summer session. Registration in excess of these limits in exceptional circumstances must be approved by the student's Graduate Advisor.

#### **Required Enrollment for Teaching and Research Assistants**

Students receiving graduate teaching or research assistantships must meet enrollment requirements during the semester in which they are supported. Assistants should complete no more than 12 semester hours and no fewer than 9 semester hours per semester. They may

register for no fewer than 6 semester hours during the summer sessions. See the section titled Graduate Assistantship/Associateship Policy for exceptions to these rules and other requirements that Assistants and Associates must meet.

### **Required Enrollment for Students Receiving Financial Aid**

To qualify for most forms of financial aid administered through the Office of Financial Aid, students must enroll in and complete a certain number of credit hours each semester to meet the Satisfactory Academic Progress requirements to receive future financial aid. Students enrolling in 9 or more credit hours at Census Date must complete at least 6 of these hours whereas students enrolling in 6-8 credits hours at Census Date must complete 4 hours to qualify for financial aid. Students enrolling in 5 hours must complete 3 hours. If a student does not complete the required minimum number of hours, they will lose eligibility for aid in the next academic year of enrollment. Students enrolling in fewer than 5 hours at Census do not meet the enrollment requirements for financial aid. The Satisfactory Academic Progress policy may be found at [www.uta.edu/fao](http://www.uta.edu/fao). Contact the Office of Financial Aid for additional information and guidance on enrollment and eligibility requirements

## **Adding, Dropping and Auditing Courses**

### **Adding and Dropping Courses**

Graduate students who wish to change a schedule by either dropping or adding a course must first consult with their Graduate Advisor. Regulations pertaining to adding or dropping courses are described below. Adds and drops may be made through late registration either on the Web at MyMav or in person through the student's academic department. Drops may occur until a point in time two-thirds of the way through the semester, session, or term. The last day to drop a course is listed in the Academic Calendar available at <http://www.uta.edu/uta/acadcal>.

1. A student may not add a course after the end of late registration.
2. A student dropping a graduate course after the Census Date but on or before drop date has passed may with the agreement of the instructor, receive a grade of W but only if passing the course with a C or better average. A grade of W will not be given if the student does not have at least a C average. In such instances, the student will receive a grade of F if he or she withdraws from the class.
3. A student desiring to drop all courses in which he or she is enrolled is reminded that such action constitutes withdrawal (resignation) from the University.
4. In most cases, a student may not drop a graduate course or withdraw (resign) from the University after the 12th week of class. Under extreme circumstances, the Dean of Graduate Studies may consider a petition to withdraw (resign) from the University after the 12th week of class, but in no case may a graduate student selectively drop a course after the 12th week and remain enrolled in any other course. Students should use the special Petition to Withdraw for this purpose. See the section titled Withdrawal (Resignation) From the University for additional information concerning withdrawal.

### **Auditing Courses**

Any person who has credit in a particular course or who has a demonstrated need for the course content may be eligible for auditing that course if space is available. An auditor has the privilege of hearing and observing only; no University credit is granted for auditing. Audit applications may be secured from the Registrar's Office. A student may audit a graduate course only with permission of the instructor and approval of the Registrar. When the form has been completed and approved, the applicant, if currently enrolled, pays \$20 per course at Bursar Services; if not enrolled, the applicant pays \$100 per course. An academic department may place restrictions on the privilege of auditing or may deny permission to audit. Audited courses will not meet Graduate School enrollment requirements.

### **Leave of Absence Policy**

A student may apply for a Leave of Absence in order to respond to exceptional circumstances that

will prevent him or her from meeting the continuous enrollment requirement. A Leave of Absence will be granted only for good cause, such as health-related issues, major financial or employment issues, pregnancy, childbirth, child care, elder care or other significant family concerns, or other major personal circumstances that interfere with a student's ability to undertake graduate study. Leaves are granted for up to two long semesters. Students returning from leave as scheduled will be automatically readmitted and will not be required to submit an application or pay an admission fee. Students who do not return at the end of their approved Leave of Absence must reapply for admission by the published application deadlines, pay all relevant evaluation fees, and are not assured of readmission to the University. During the time of the leave of absence, the student may not use University facilities or resources, receive an assistantship or fellowship, continue academic work with faculty, take a diagnostic or comprehensive examination, or defend a thesis or a dissertation. Time taken on an approved Leave of Absence will not count against degree completion time limits.

An approved Leave of Absence does not exempt students from the enrollment requirements of other programs, offices, and agencies such as the Veterans Administration, Immigration and Naturalization Service, and federal financial aid and certain load programs. It is the student's responsibility to determine what effect a Leave of Absence will have on his or her status with such entities. For example, International students approved for a Leave of Absence must inform the Office of International Education so that requirements of the Immigration and Naturalization Service can be addressed.

A student requesting leave should complete the Leave of Absence Request form and obtain the approval of his or her Graduate Advisor who will forward the request on the Dean of Graduate Studies for final review and approval. This form is available online at the [Graduate School website](#). Requests must be delivered to the Graduate School no later than the mid-semester deadline listed on the Graduate School Calendar for the semester in which the leave is to begin.

Leave of Absence will not be granted retroactively for a semester after the mid-semester point has passed. Students who miss this deadline must apply for readmission.

## **Withdrawal (Resignation) from the University**

A student who wishes to withdraw (resign) voluntarily from the University may do so by withdrawing from all graduate and undergraduate classes prior until the point of time corresponding to two-thirds of the duration of the semester or term. The exact date of the deadline is provided in the Academic Calendar available at <http://www.uta.edu/uta/acadcal>. After this deadline has passed, a graduate student or undergraduate student enrolled in a graduate course is not permitted to withdraw or to selectively drop courses. In exceptional cases, however, a graduate student may request to withdraw after the deadline by obtaining a Petition to Withdraw form and submitting it to the Dean of Graduate Studies. (Students should use the special Petition to Withdraw for this purpose and not the Petition form used for other types of requests.) If the petition is not approved, the student remains responsible for all coursework requirements. Therefore, students should not discontinue class attendance or course assignments unless they have been notified in writing that the Dean of Graduate Studies has approved the petition to withdraw. A Petition to Withdraw is available online at the [Graduate School web site](#) or in the Graduate School office.

## **Withdrawal as a Result of Military Service**

A student who withdraws as a result of military service is to receive the following considerations according to Section 54.006 of the Texas Education Code: (1) receive a refund of tuition and fees (2) if eligible, be assigned a grade of incomplete (I) or (3) as determined by the instructor, receive a final grade or credit in courses where the student has satisfactorily completed a substantial amount of coursework and has demonstrated sufficient mastery of the course material.

## **Change of Graduate Major, Program or Degree Level**

Students wishing to change graduate major, program or degree level (master's or doctoral classification) from the one in which they are enrolled currently or in which they were enrolled



during their most recent semester at UT Arlington must initiate the change by completing the "Request for Change of Graduate Program or Degree Level" form. Students may submit only one "Request for Change of Graduate Program or Degree Level" form at a time. Additional forms will not be processed until a final decision on any prior requests have been made. Students intending to change majors should consult the Graduate Advisor of the new program regarding program admission and degree requirements before completing this form. Similarly, students wishing to change degree level should submit the request after discussing the matter with the appropriate graduate advisor.

Students wishing to change from one program to a dual degree program must complete the "Request for Change of Graduate Program or Degree Level" form and mark the box stating "Request to Change to Dual Degree Program (master's level only).

Students wishing to change from a dual degree program to single degree program must complete the "Request For Change of Graduate Program or Degree Level" form and mark the box stating "Request to Change to New Graduate Program".

Students wishing to change from Doctoral to Masters degree level for conferral of the masters degree must complete the "Request for Change of Graduate Program or Degree Level" form and mark the box stating "Request to change from PhD to Masters status (for conferral of the master's degree)". Students will remain in masters status until award of the masters degree. Upon award of the masters degree students will be automatically changed back to doctoral status.

The "Request For Change of Graduate Program or Degree level" form can be found at our Web site <http://grad.uta.edu/students/forms/> or by request from the Graduate School Office.

## Graduation Requirements and Procedures

### Degree Conferral

Degrees are awarded at the end of the fall semester (December), spring semester (May) and summer session (August). Formal commencement ceremonies are held within the college or school in which the degree is earned. Students should contact the Office of the Dean of their department for information concerning the commencement ceremonies.

### Degree Requirements

Each graduate student must complete degree requirements in accordance with the Graduate Catalog in force at the time the student entered the graduate program in which the degree will be awarded or, at the student's option, the catalog of any subsequent year in which the student was in residence. If a student chooses to complete degree requirements in accordance with the catalog of a year subsequent to that in which he/she entered the graduate program, the student's graduate advisor must indicate such by submitting an online request form to the Graduate School. Graduate Advisors must contact the Office of Graduate Studies graduation desk to access the required form.

Please note that changes in Graduate School regulations and policies become effective for all enrolled students in the year for which the catalog is in force, regardless of the year of initial enrollment. Thus, students may choose to satisfy degree requirements specified in an earlier catalog, but all must observe Graduate School regulations and follow graduation procedures prescribed in the Graduate Catalog in force in the intended semester of graduation.

### Continuous Enrollment

After initial enrollment in the thesis or dissertation course, a student must maintain continuous enrollment in thesis or dissertation courses (summers excluded unless summer enrollment in thesis/dissertation is required by student's program) until the thesis or dissertation has been accepted by the Dean of Graduate Studies. This requirement applies even when a student is working on their thesis or dissertation at an off-campus location. Failure to maintain continuous enrollment may invalidate previous thesis or dissertation work.

### Enrollment Requirements for Thesis and Dissertation Courses

## Academic Standing

Students may not register for dissertation or thesis courses if they are not in good academic standing.

## Credit Hours

A student receiving advice and assistance from a faculty member in preparation of a thesis or dissertation must register for the appropriate course even if the student is not on campus. Variable credit is available for thesis and dissertation courses. Each semester, after consulting with their Graduate Advisor, students must register for the amount of thesis or dissertation credit commensurate with the effort to be expended by the student and the advisor in preparation of the thesis or dissertation. Most master's students must enroll in a six-hour thesis course (5698) and all doctoral students must enroll in the appropriate Dissertation (6699, 6999) or Doctoral Degree Completion course (7399) in the semester in which they intend to defend their theses or dissertations. A passing grade (P) is required in the appropriate thesis or dissertation course to complete graduation requirements and a P grade is only awarded when the thesis or dissertation defense results in an unconditional pass. A grade of R (research in progress) or a grade of F will be given in thesis or dissertation courses if they do not culminate in a successful defense. The grade of R is a permanent grade that does not carry any credit value. To meet graduation requirements, students must re-enroll in the appropriate thesis or dissertation course until the thesis or dissertation is completed and a grade of P is earned. The Doctoral Degree Completion course, 7399, may be taken only once and cannot be repeated.

## Final Semester Requirements

### Enrollment Requirements

All students must be enrolled in the Graduate School in the semester in which they complete all graduate degree requirements and apply for graduation. Students defending or completing required changes in their thesis or dissertation in their final semester must be enrolled in the proper thesis (typically 5698) or dissertation course (6699, 6999 or 7399) to receive a passing grade. Students may not petition for a reduction in this requirement. Enrollment in courses outside the major and minor fields will not satisfy final semester enrollment requirements. Students may request to graduate *In Absentia* if they have completed all degree requirements and must register simply to have their degree awarded.

### Funded Students Enrollment Requirement

Funded students are normally expected to be enrolled as full time students while holding an assistantship or associateship. Master's students who must enroll in a six-hour Thesis course or doctoral students who must enroll in a six or nine-hour Dissertation Course or three-hour Dissertation Completion Course because they have not received a passing grade in one of these courses must enroll in one of these courses and receive a grade of P in their final semester. However, master's students who need fewer hours to complete their degrees may petition for a waiver of full time enrollment as described in the Assistantship/Associateship Policy section of this catalog.

### In Absentia Registration

*In Absentia* registration is allowed when degree candidates have completed all requirements for graduation by the last date to qualify for *In Absentia* registration (see the [Graduate School Calendar](#)) and who would otherwise need to register in the following semester for the sole purpose of having a degree conferred. A student may only request *In Absentia* registration in the regular or summer semester immediately following the semester in which he or she was enrolled and completed all graduation and degree requirements. Students registered *In Absentia* may not enroll for courses. No refund is made for cancellation of *In Absentia* registration. *In Absentia* registration requires permission of the Graduate Advisor and the Dean of Graduate Studies. Students may obtain the Request to Register *In Absentia* Form on the [Graduate School website](#). In addition to paying the cost of *In Absentia* registration, candidates must file an application for graduation and pay the appropriate graduation fees for the semester of graduation.

## Application for Graduation

All graduating students must file an Application for Graduation with the Graduate School by the deadline specified in the [Graduate School Calendar](#) for the semester of graduation. The application and other information pertaining to graduation requirements may be found on the [Graduate School website](#). Neither the graduation application nor graduation fees are transferable to a subsequent semester; therefore, if a student does not graduate in the semester indicated in the initial application, a new application must be filed for the semester of graduation and the appropriate fees paid again.

Students who fail to apply for graduation by the deadline specified in the [Graduate School Calendar](#) may apply late by completing the Application for Graduation and paying a late fee. Applications for graduation will be accepted with a late fee for 30 calendar days after the deadline for applying for graduation. If this date falls on a weekend, the deadline for applying late will be the Monday after the date. After that date, no applications will be accepted and students must apply for graduation for a subsequent semester. Applicants for graduation will be billed the Graduation Application fee and, as appropriate, the diploma mailing fee and the late fee. Again, graduation charges are non-transferable and non-refundable. See the section titled Tuition, Fees, and Charges in this catalog for information on specific fees.

## Summary of Final Semester Requirements for Master's Degree Candidates

Each master's student must:

### **Enroll in**

1. the six-hour thesis course if a thesis plan student
2. the master's comprehensive course or equivalent if required by the student's program
3. at least one graduate course in the student's program if not enrolled in 1 or 2 above

### **File**

1. an Application for Graduation
2. a request for the Final Master's Examination, if applicable
3. the Final Master's Examination Report, if applicable
4. the appropriate checklist and the documents listed on that checklist upon notification of acceptance of the thesis, if applicable

### **Pay**

1. the Application for Graduation fee
2. the diploma mailing fee, if applicable
3. the required thesis library processing fee, if applicable
4. any other outstanding university charges

## Summary of Final Semester Requirements for Doctoral Candidates

Each doctoral candidate must:

### **Enroll in**

1. The appropriate dissertation course (6999, 6699, or 7399)

### **File**

1. an Application for Graduation
2. a request to Schedule Dissertation Defense
3. a Dissertation Defense Report
4. the appropriate checklist and the documents listed on that checklist upon notification of acceptance of the dissertation by the Graduate School.

### **Pay**



1. the Application for Graduation fee (diploma fee)
2. the diploma mailing fee, if required
3. the required dissertation binding, microfilming and Library Processing fees and the optional copyright fee.
4. any other outstanding university charges

## Deadlines

All Graduate School deadlines, as indicated on the calendar or in the explanation of policies and procedures, unless otherwise stated, are final at 5 p.m. of the date specified. By this time all transactions must be completed and documents received in the Office of the Dean of Graduate Studies. Transactions and documents requiring action or approval of Graduate Advisors, committees, instructors, department chairmen, academic deans or others prior to receipt by the Graduate School should be initiated by the appropriate person (student, instructor, Graduate Advisor or other) sufficiently in advance of the Graduate School deadline for the required actions to be taken and approvals received.

## Graduate Assistantship/Associateship Policy

Graduate teaching and research assistantships and associateships are funded through state appropriations and federal, state, local and private grants for at least three principal reasons. First, employment of graduate students in teaching and in research positions during their graduate education encourages and supports their participation in these two major functions of a university and thereby strengthens the quality of the students' educational experience. Second, assistantships and associateships provide direct financial support to outstanding students who are essential to the development of quality graduate programs. Third, graduate students provide valuable and necessary services to the University in their roles as teaching and research assistants and associates. It must be kept in mind, however, that graduate assistants and associates are first and foremost students. As such, their most important task is to complete their degree requirements in a timely fashion; this is the primary expectation of the University as well.

The University of Texas at Arlington supports the "Resolution Regarding Graduate Scholars, Fellows, Trainees, and Assistants" of The Council of Graduate Schools in the United States. A copy of the resolution and list of signatory institutions is available in the Graduate School and can be viewed at [www.cgsnet.org/portals/0/pdf/CGSResolutionMarch2009.pdf](http://www.cgsnet.org/portals/0/pdf/CGSResolutionMarch2009.pdf). To assure the appointment of the most highly qualified students available and to best realize the principal objectives for which graduate assistants are employed, The University of Texas at Arlington has adopted the following policies and regulations, all provisions of which apply to both graduate assistantships and graduate associateships.

## Admission Status

A student must be admitted to a degree program to be eligible to hold a graduate assistantship. Students admitted as Provisional students may not be considered for an assistantship until all provisional requirements have been resolved. New students, admitted with probationary conditions, may be considered for an assistantship, subject to the requirement that they earn and maintain a 3.0 grade-point average while enrolled as a graduate student, conform to admission conditions specified by the admitting department or the Graduate School, and meet assistantship enrollment requirements.

## English Proficiency

Before being appointed to a teaching assistantship at UT Arlington, a student whose native language is not English must demonstrate English proficiency. The preferred method to demonstrate proficiency is to submit an acceptable score of at least 23 on the Speaking Section of the TOEFL, or a score of at least 7 on the Speaking Section of the IELTS, or take and pass the UTA Developmental English course. The TOEFL and IELTS scores should be sent directly to UT Arlington by ETS or IELTS. Score reports submitted directly by the student or those marked "Student Copy" or "Applicant's Copy" are not considered official and will not be accepted by the

University. The English proficiency requirement will be waived for non-native speakers of English who possess a bachelor's degree from an accredited U.S. institution. See the catalog entry titled Application Documentation Requirements in the Admission Requirements and Procedures section for further information.

### Developmental English Program

Students who do not achieve scores on the TOEFL or IELTS high enough to satisfy the English proficiency requirements for graduate teaching assistants must enroll in the Developmental English Program and be certified for English proficiency before becoming eligible to hold a teaching assistantship. This 10-week program, offered by the UT Arlington English Language Institute, emphasizes oral presentation skills and accent reduction. Registration is in 402 Hammond Hall, and the charge for course is payable at the time of registration. Contact the English Language Institute at 817.272.2730 for details, including the current class schedule and charges.

### Continuation or Renewal of Appointment

Although a student may be appointed initially to a graduate assistantship for a full academic year, continuation of the appointment beyond the first semester is subject to the following conditions:

1. To continue or renew an appointment, the student must be in good standing in the University. A student on academic probation is not in good standing, and therefore, will automatically lose his or her assistantship. However, Graduate Advisors, with the written endorsement of their department's or program's Graduate Studies Committee, may petition the Dean of Graduate Studies to allow a one-time exception, granting one additional semester of assistantship support in the next semester of enrollment if they judge the student is capable of raising his or her GPA to the required minimum by the end of that semester and believe that the student is making satisfactory progress in all other aspects of their studies. If granted, the student will be considered to be in good academic standing for one semester for purposes of continuing their assistantship. This broadened definition of academic good standing for a student with a GPA below 3.00 applies only in cases where a program wishes to continue or renew a student's teaching or research assistantship during the semester of enrollment following the one in which his or her GPA dropped below 3.00. Programs may not request this exception on behalf of students who will hold any other type of employment.

A student granted one semester of good academic standing for purposes of continuing their assistantship must improve his or her UT Arlington graduate grade-point average to 3.00 and return to good academic standing as normally defined in the next semester of enrollment in order to qualify for assistantship support in subsequent semesters. Requests to extend this form of good standing beyond one semester will not be approved. Further, students who have previously received a one-semester extension of academic good standing for purposes of continuing their assistantship will not be eligible for this exception again.

2. The student must be making satisfactory progress toward an advanced degree.
3. The student must have performed assigned assistantship duties satisfactorily in the preceding semester(s) as determined by the department in which the assistantship is held.

A department may limit the number of semesters during which a graduate student may hold an assistantship.

### Resident Tuition Rates

Graduate teaching and research assistants employed at least 20 hours per week in positions related to their degree programs are entitled to Texas resident tuition rates. Eligibility for the resident rate must be certified prior to registration otherwise, full tuition will be assessed. Non-resident students receiving appointments after a term's published Census date will not be eligible for resident tuition rates in that term.

Non-resident or international students holding less than full assistantships (full meaning 20 hours employment per week) are not eligible for Texas resident rates.

## Course Load

### Full Assistantships

Graduate assistants holding full assistantships (20 hours of employment per week) may register for and must complete no fewer than nine semester hours and no fewer than six semester hours during the three summer semesters.

The nine hour minimum registration limit may be reduced to six semester hours for thesis and dissertation students who 1) have completed all required coursework 2) are registered for thesis or dissertation research only. In such cases, master's students should enroll in 5698 and doctoral students who have passed their Comprehensive Examinations should enroll in 6699 course. International students meeting these requirements must obtain written permission from the Office of International Education to enroll in fewer than nine hours and present it to the appointing department. Students defending their theses typically must enroll in a six-hour thesis course. Doctoral students who have completed or will complete a total of at least nine hours of dissertation research in 6399, 6699, 6999 and/or 7399 courses prior to graduation may meet minimum registration requirements in the term they intend to defend their dissertations and graduate by enrolling in 7399. However, if a student does not graduate after enrolling in 7399, he or she must enroll in 6699 or 6999 until graduation. The 7399 course may not be repeated. Students may not petition for a course load reduction below these requirements.

Non-thesis master's students with only three to six hours of organized coursework left to complete a program in his or her final semester are permitted to hold an assistantship while enrolled in the three to six hour course. International students in these instances must obtain written permission from the OIE for less than nine hours of enrollment and present it to the appointing department.

### Partial Assistantships

Graduate Teaching Assistants or Graduate Research Assistants who have a 25% (10 hours of employment per week) or less appointment must be enrolled for at least six hours during a long semester and three hours during the summer. This enrollment requirement covers both organized courses and dissertation and thesis hours. However, all graduate students, whether funded or unfunded, must follow UT Arlington policy concerning required enrollment in the final semester.

## Assignment of Duties

Graduate assistants are under the direction of the department chair with regard to assistantship responsibilities and assignments.

## Additional Employment While an Assistant or Associate

### All Students

In accepting a graduate assistantship/associateship, students agree to devote their efforts to graduate studies and assistantship/associateship responsibilities. In some circumstances, however, additional employment may be justified. Immigration policies severely restrict the amount that an international student may work.

### U.S. Citizen Students

Full-time (20-hour) graduate assistants wishing to hold additional assistantships/associateships or accept additional on or off-campus positions must obtain the approval of their Graduate Advisor. Approval will only be given if the additional work will not impact the student's academic progress negatively or exceed employment limits allowed by law.

### International Students

During the fall and spring semesters, international students may work on campus only 20 hours per week unless authorized for additional employment through Curricular Practical Training (CPT). During vacation and the summer, international students may work more than 20 hours per week on-campus without additional authorization. At anytime during the year, employment with an off-campus employer must be authorized by either BCIS or by the International Office in the case of CPT. The Office of International Education must grant approval prior to taking on additional employment if that employment is to be authorized by CPT. Students holding a UT Arlington assistantship wishing to work off-campus in addition to the assistantship, must 1) meet and maintain the enrollment requirements for holding an assistantship 2) meet the immigration requirements for CPT 3) work only part-time (20 hours or less) off-campus 4) be employed in off-campus work that is clearly connected to his or her assistantship. If these requirements are not met, a student will be obliged to give up either the assistantship or the off-campus employment.

## Seeking Exceptions to Policies of the Graduate School

A student may petition for exceptions to published rules of the Graduate School by submitting a Petition to the Graduate Faculty form to his or her Graduate Advisor. The Graduate Advisor and the departmental Committee on Graduate Studies Chair will evaluate the petition and send it to the Dean of Graduate Studies for final judgment. Limited exceptions to some rules may be approved if the facts presented by the petitioner are fully justified in the views of the Advisor, Committee on Graduate Studies Chair, and Graduate Dean. All petitions must be submitted on the petition form available online through the [Graduate School website](#).

## Course Designation System

The following example provides an explanation of the designation system of graduate courses at The University of Texas at Arlington.

### 5313 CARBONATE PETROLOGY (2-3)

1. The four-digit number (5313) is the departmental unique numerical designation for the specific course listed.
  - a. The first digit (5) in the above example denotes the level of the course. Graduate courses are designated 5 or 6.
  - b. The second digit (3) denotes the semester hour credit of the course.
  - c. The third and fourth digits (1 and 3) are departmental designations and may or may not have sequential significance.
2. The first number in parentheses following the course title indicates the class hours per week devoted to lecture. The second number indicates the class hours per week devoted to laboratory, practice or fieldwork for the fall or spring semester.

Each department or program has been assigned a unique two-, three- or four-character prefix for use in course designations on registration documents, transcripts and other University records. For example, the Carbonate Petrology 5313 course described above is taught in the Department of Geology and appears on student records as GEOL 5313. The two-, three- or four-character prefix is given in parentheses after the department or program name in the catalog section describing academic departments and programs.

[Graduation Requirements and Procedures](#)  
[Graduate School Deadlines](#)  
[Graduate Assistantship/Associateship Policy](#)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
 ©2013 [The University of Texas at Arlington](#)

## About Us

- [Welcome](#)
- [Academics & Research](#)
- [Cultural Diversity](#)
- [Grad Stories](#)
- [Graduate Catalog](#)
- [Contact Us](#)

## Prospective Students

- [New & Current Students](#)
- [Faculty & Staff](#)
- [Alumni & Friends](#)
- [Special Programs](#)
- [Site Map](#)

# Graduate Catalog

## Current Catalog

## Archives of Earlier Catalogs

[2013–2014](#)
[2012–2013](#)
[2011–2012](#)
[2010–2011](#)
[2009–2010](#)
[2008–2009](#)
[2007–2008](#)
[2006–2007](#)
[2005–2006](#)
[2004–2006](#)
[2002–2004](#)
[2000–2002](#)

By default, you are governed by the rules of the catalog in effect when you enrolled. You can also opt to be governed by the rules of any subsequent catalog that was in effect while you were in residence. See the **Graduation Requirements and Procedures** section of the [University Catalog](#) for more information on how to make this change.

The University of Texas at Arlington Online Graduate Catalog is the official version and takes precedence over any printed version of the catalog.

### [Search our Online Archives of Earlier Catalogs](#)

Catalogs that are no longer online are still available through the [University Archives](#). Please contact the [University Archivist](#) for more information.

The catalog is a general information electronic publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees, rules, calendars, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled.

You are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt you from whatever penalties you might incur.

The University of Texas at Arlington [Graduate Admissions](#)

Box 19167, Arlington, Texas 76019, USA | Phone [817.272.3372](#) | Fax [817.272.1494](#)

[Blog](#) | [Facebook](#) | [Twitter](#)

© 2017 [The University of Texas at Arlington](#)



UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

## Degree Requirements

Unable to connect to database.



UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

## Fields of Study

Unable to connect to database.





# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[Proposed Admissions Changes Effective August 2014](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Admissions Requirements & Procedures

### Admission

#### Basic Admission Requirements

#### Application

- [Application Evaluation Charges](#)

#### Application Documentation Requirements: Required Official Transcripts, Marksheets, Diplomas and Standardized Tests

- [U.S. Transcript Criteria](#)
- [Foreign Country Transcripts or Marksheets and Diplomas Criteria](#)
- [Standardized Test Score Reports](#)
- [TOEFL and IELTS Test Score Minimums](#)
- [TOEFL iBT or IELTS Requirements for Graduate Teaching Assistants](#)
- [Retention of Application Materials](#)

#### Notification of Applicants Regarding Admission Decisions

#### Types of Admission Decisions

- [Unconditional Admission](#)
- [Probationary Admission](#)
- [Provisional Admission](#)
- [Deferred Admission](#)
- [Denied Admission](#)
- [Graduate English Skills Program](#)

#### Application Deadline and Admission Requirements for United States Citizen Applicants

- [Calculation of the Grade-Point Average for Admission Purposes for Students With Degrees From U.S. Colleges and Universities](#)

#### Academic Fresh Start

- [Undergraduate Programs](#)
- [Postgraduate/Professional Programs](#)

#### Application Deadline and Admission Requirements for International and U.S. Resident Alien Applicants

- [Calculation of the Grade-Point Average \(GPA\) for Admission Purposes for Students With Degrees From International Colleges and Universities](#)

#### Special Admissions Programs

- [Facilitated Admission of Outstanding UT Arlington Undergraduates](#)



- **Waiver of the Graduate Record Examination**
- **Fast Track**
- **Non-Degree Seeking (Special) Applicants and Graduate Certificate Applicants**
- **Changing Starting Semester, Program, or Degree Level Prior to Admission at UT Arlington**
- **Readmission**

## **Graduate Student Advisement**

### **Registration**

### **Restrictions on Admission**

- **General Restriction**
- **Faculty Members**

**This catalog is a general information publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington Graduate Studies Office or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees or tuition, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled. Students are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt a student from whatever penalties the student may incur.**

## **Admission**

The admission requirements set forth in the following pages are the minimum standards required for admission to graduate school. Meeting them does not guarantee acceptance into a departmental degree program because most departments have more stringent admission standards.

The admission policies of Graduate Admissions and the academic departments of The University of Texas at Arlington comply with standards specified by the Texas Education Code, Section 51.842. Specifically, performance on a standardized test is not the sole criterion for consideration of an applicant for admission or the primary criterion to end consideration of the applicant for admissions. Relevant experience, commitment to the field of planned study, multilingual proficiency, and socioeconomic background (to the extent that it can be identified) may also enter into these decisions. This law does not apply to standardized tests used to measure the English language proficiency of non-native English speakers without a bachelor's or master's degree from a regionally accredited U.S. institution.

## **Basic Admission Requirements**

Graduate Admissions requires that basic admission requirements be met before a student can be accepted. In meeting these requirements, an applicant 1) must have a bachelor's degree from a regionally accredited U.S. college or university or its foreign equivalent, with a satisfactory grade-point average; 2) must have an acceptable and current score on the aptitude tests of the Graduate Record Examination or the Graduate Management Admission Test, as specified by the department or program to which application is being made; 3) demonstrate potential for graduate work in the chosen field through previous academic performance; and 4) be approved for admission by the department in which a degree is sought. Admission to a doctoral program additionally requires a master's degree, or successful completion of at least 30 graduate hours, from a regionally accredited U.S. college or university or its foreign equivalent. Certain programs require students to

submit to, and satisfactorily complete, a background check review as a condition of admission and/or participation in education experiences. Students who refuse to submit to a background check or who do not pass the background check may be dismissed from the program. Applicants should examine departmental requirements with care.

## Application

Application for admission must be made on official application forms. Students may complete the application online by accessing our Web site <http://grad.uta.edu>. Please note, you may only submit one application, and be considered for admission to one program at a time.

### Application Evaluation Charges

A non-refundable application evaluation charge is required of all applicants. Payment must be received before processing can begin. There are no exceptions to this policy.

A non-refundable evaluation charge of \$40 is required of all U.S. citizens and U.S. Resident Alien applicants who have completed all of their college or university work at institutions located in the United States. A \$70 evaluation charge is required of all U.S. citizens and U.S. Resident Alien applicants who have completed some or all undergraduate or graduate coursework at an institution located outside of the United States.

All international students are required to pay a non-refundable \$70 application evaluation charge.

## Application Documentation Requirements: Required Official Transcripts, Marksheets, Diplomas and Standardized Tests

Graduate Admissions application processing requires receipt of official U.S. transcripts or foreign country transcripts or marksheets and diplomas. Unattested, notarized or fax copies of U.S. transcripts, foreign country transcripts, marksheets, diplomas, test scores and other academic records are not acceptable for processing purposes. Acceptable transcripts, marksheets and diplomas from U.S. and international institutions are described below. Documents meeting the indicated criteria will be accepted by Graduate Admissions for admission purposes. Unacceptable documents will prevent or cause delays in admission processing.

### U.S. Transcript Criteria

Official transcripts from U.S. institutions are those mailed directly to Graduate Admissions by the Registrar or responsible head of the institution at which the work was attempted or completed. An official original "issued to student" transcript on safety paper with the official university seal and signature of the university's Registrar may be acceptable upon Graduate Admissions review. Submit one set of transcripts. Currently or previously enrolled UT Arlington students do not have to request UT Arlington transcripts be forwarded by the UT Arlington Registrar to Graduate Admissions.

### Foreign Country Transcripts or Marksheets and Diplomas Criteria

Official foreign country transcripts or marksheets and diplomas are those bearing the original seal of the institution and the original signature of the Registrar or responsible head of the institution. Those not issued in English must be accompanied by an exact word for word original English translation bearing the original university or translation agency attestation. Submit one set of transcripts or marksheets and diplomas. They may be sent directly to Graduate Admissions by the institution or by the applicant.

### Standardized Test Score Reports

Official test score reports for the Graduate Record Exam (GRE), and Test of English as a Foreign Language (TOEFL) are issued by the Educational Testing Service (ETS) and sent by ETS directly

to Graduate Admissions. Official test score reports for the Graduate Management Admission Test (GMAT) are issued by the Graduate Management Admission Council (GMAC) and sent by GMAC directly to Graduate Admissions. Current information about GRE, GMAT, and TOEFL test dates, locations and registration procedures is published by ETS at [www.ets.org](http://www.ets.org). For current information about the GMAT including test dates, locations, registration procedures, and time frames for test score validity, access [www.mba.com](http://www.mba.com). Official test scores for the International English Language Testing System (IELTS) are reported on an IELTS issued Test Report Form (TRF) and sent directly to the Graduate School from IELTS. Current information about IELTS test dates, locations and registration procedures is published by IELTS at [www.ielts.org](http://www.ielts.org).

Graduate Admissions sets test score minimums for tests that measure English proficiency such as the TOEFL and IELTS; however, individual departments and programs may impose a more stringent test score requirement. Individual departments and programs may evaluate GRE or GMAT scores as one of several criteria to determine admissibility. Test scores do not constitute the sole or primary basis for ending consideration of an applicant. Applicants should refer to individual departmental or program section for test requirements.

### TOEFL and IELTS Test Score Minimums

An applicant whose native language is not English must demonstrate a sufficient level of skill with the English language to assure success in graduate studies. Applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.

An applicant holding either a bachelor's or a master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL or IELTS score for admission purposes. Any other waivers of the score requirements must be recommended by the applicant's Graduate Advisor and approved by Graduate Admissions.

### TOEFL iBT or IELTS Requirements for Graduate Teaching Assistants

Before being appointed to an assistantship at UT Arlington, a student whose native language is not English must demonstrate acceptable skill with spoken English. An applicant who is a non-native speaker of English must submit a TOEFL iBT score of at least 23, or a score of at least 7 on the Speaking section of the IELTS, or take and pass the UTA Developmental English course to meet this requirement. Only official scores provided directly to UT Arlington by ETS or IELTS are acceptable. The English proficiency requirement will be waived for non-native speakers of English who possess a bachelor's degree from an accredited U.S. institution.

### Retention of Application Materials

Application materials become property of The University of Texas at Arlington and cannot be returned.

### Notification of Applicants Regarding Admission Decisions

While admission related information received from the graduate program to which an individual has applied may be important and useful, such information does not constitute official notice of admission into graduate school or into a graduate program at The University of Texas at Arlington.

Official notification of the admission decision is sent by Graduate Admissions directly to the applicant. It is very important that applicants read this notice carefully because it describes any conditions or restrictions placed on admission that must be addressed. Many of these conditions must be satisfied before the end of the first semester of enrollment. If they are not, a student may be barred from enrolling in subsequent semesters. Thus applicants should read the notice and keep it for future reference. Admission conditions described in official notification letters are described in the following section.

## Types of Admission Decisions

After an applicant's credentials have been evaluated by the Graduate Advisor in the applicant's major area and by Graduate Admissions, the applicant will be notified by letter and email from Graduate Admissions of: 1) acceptance and admission under one of the categories of admission listed below; or 2) denial of application; or 3) deferral of application for reasons listed in the letter. If accepted, an acceptance notification will be sent by Graduate Admissions stating the conditions for admission, if any, and the semester of validity of the acceptance. Applicants who have not received an admission notification one week prior to the beginning of classes for the semester for which admission is sought should contact Graduate Admissions for information concerning the status of their application.

### Unconditional Admission

An applicant who meets all requirements is normally considered for unconditional admission.

### Probationary Admission

An applicant who does not meet all requirements for unconditional admission nevertheless may show promise for successful graduate study and, upon recommendation of the appropriate Committee on Graduate Studies and approval of Graduate Admissions, may be granted probationary admission. Special course requirements or other conditions may be imposed by the Committee on Graduate Studies in the student's major area and/or by Graduate Admissions.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission upon recommendation of the appropriate Committee on Graduate Studies and approval of Graduate Admissions. Complete and satisfactory credentials must be received by Graduate Admissions before the end of the semester in which the student has registered in a provisional status. A student will not be permitted to enroll in graduate school with a provisional status for more than one semester. Provisional admission does not guarantee subsequent admission on an unconditional basis. International applicants residing outside of the United States at the time of application may not be admitted on a provisional basis. A student may not hold an assistantship while in provisional status.

### Deferred Admission

If an applicant does not present adequate evidence of being able to supply the required application materials or must complete additional preparatory work before their admissibility can be determined, the admission decision may be deferred until the records are complete. The applicant will be sent an Admission Deferral Notice specifying the data that must be provided or the work that must be completed before the application will be reconsidered. The application may be reactivated for reprocessing by completing the "Reactivate an Admissions Application" on our Web site <http://grad.uta.edu>. An application evaluation charge will be required for each reprocessing request unless the request is made for the original semester and program.

### Denied Admission

Admission is typically denied if an individual fails to meet more than one of the admission standards of the department to which he or she applied, and the admission committee feels that there is insufficient basis to justify a probationary, provisional or deferred admission recommendation. As the admission process is competitive, students meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

Applicants denied admission to graduate school may not take or reserve graduate courses for graduate credit, or enroll as a special non-degree seeking or graduate certificate student. Applicants denied admission may ask the Graduate Advisor in the program to which they applied

about the deficiencies that led to the denial. Upon recommendation of the Graduate Advisor, applicants denied admission due to a low bachelor's degree grade point average, may take undergraduate courses at UT Arlington or another senior level or four year regionally accredited institution, in order to raise their grade point average. Applicants may reactivate their admission if the deficiencies in credentials that led to denial are remedied. An application evaluation charge will be required for each reactivation request.

### Graduate English Skills Program

The Graduate English Skills Program (GESP) comprises an intensive English course designed for international students who have been conditionally accepted to graduate school because of marginally acceptable scores on verbal admission tests.

The program focuses on improving English language skills in the areas of academic writing, reading/research skills, note taking from academic lectures, accent reduction and oral presentations. Instruction includes technological support materials.

International students must receive admission from Graduate Admissions at UT Arlington and permission from their graduate departments to enroll in GESP to remove their English deficiencies.

Students who receive permission to enroll in GESP are tested in writing, reading, speaking and listening. Based on the outcome of placement tests, the English Language Institute (ELI) will recommend to the graduate departments the areas where each student needs improvement. A student may be required to take no further English up to a maximum of three skill areas (five hours) per day. Students studying less than five hours of English per day may be allowed by their department to enroll in some graduate courses as well.

At the end of a semester, if the student has attained a minimum average of 85% during the semester, the GESP Coordinator will recommend to the graduate department that the student enroll for all graduate courses or continue studying English. Most students complete their English requirements in a semester.

GESP tuition charges and other information can be found at <http://eli.uta.edu> or contact the GESP Coordinator at the English Language Institute, Box 19560, Arlington, Texas 76019. Phone: 817.272.7576. Fax: 817.272.2731.

### Application Deadline and Admission Requirements for United States Citizen Applicants

A U.S. citizen student may complete the application online. Since admission requirements vary and are program specific, go to our Web site at <http://grad.uta.edu> for admission criteria specific to each individual department and program. The application and following required credentials should be submitted preferably 90 days prior to the date of expected enrollment: 1) one set of official transcripts of all undergraduate and graduate college work; currently or previously enrolled UTA students do not have to request UTA transcripts be forwarded by the UTA Registrar to Graduate Admissions; 2) official GRE or GMAT test score as required by the intended program; 3) official TOEFL or IELTS test score, if applicable; 4) three letters of recommendation; 5) general academic plans; and 6) a nonrefundable application evaluation charge of \$40, if no foreign college or university work or \$70, if foreign college or university work.

Some graduate programs may set deadlines for admission or consideration of applicants for graduate assistantships that are earlier than general deadlines established by Graduate Admissions. Such deadlines will be included in descriptions of admission requirements provided by each department. Applicants should read those materials carefully and submit their application materials before a departmental deadline passes. If the department does not specify a deadline, applicants should meet the Graduate Admissions deadlines described above.

### Calculation of the Grade-Point Average for Admission Purposes for Students With Degrees From U.S. Colleges and Universities



The grade-point average for admission to graduate school at The University of Texas at Arlington is calculated according to Texas law and the policies and procedures of Graduate Admissions. For applicants completing work in U.S. institutions of higher learning, calculation of the grade-point average for admission purposes is based on the last two years of courses from the bachelor's degree transcript, on a 4.0 scale. In practice, this grade-point average is based on approximately the last 60 semester hours or the equivalent in quarter hours (90 quarter hours) shown on an applicant's bachelor's degree transcript.

In cases in which an applicant's transcript shows repeated courses, the grade-point calculation includes all grades earned in those courses.

For an applicant who applies before official receipt of the bachelor's degree, the grade-point calculation will include all senior college and university work completed to date. The grade-point average will not be automatically recalculated upon receipt of the degree.

An applicant wishing to have undergraduate courses completed after their degree included in the grade-point calculation may submit a written request to Graduate Admissions at the time the application for admission is submitted.

An additional grade-point average is calculated for an applicant awarded or completing a master's or doctoral degree at the time application to UTA is made. For master's level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's degree at the institution from which the degree has been or will be awarded. For doctoral level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's and master's degree at the institution from which the doctoral degree has been or will be awarded. The grade-point average will be calculated on the basis of information provided at the time application to UTA is made and will not be automatically recalculated upon completion of on-going work or award of a degree.

International applicants and others with degrees earned outside the United States should see the grade-point calculation information under Admission of International Students and Resident Aliens.

The following are not included in grade-point calculations for admission purposes:

1. courses completed at junior or community colleges
2. courses completed by examination or correspondence
3. incomplete grades or withdrawals
4. pluses and minuses
5. personal improvement courses such as activity courses in physical education
6. graduate courses or any courses completed in graduate student status (a graduate grade-point average will be calculated and reported separately)
7. courses in which the grade is a P, pass, credit, satisfactory or other such designation

## **Academic Fresh Start**

### **Undergraduate Programs**

Texas residents may seek to enter undergraduate programs at U.T. Arlington under provisions of the "academic fresh start" statute, Section 51.931 of the Texas Education Code. When applicants inform U.T. Arlington admissions officials in writing of their decision, U.T. Arlington will not consider in the admissions decision any academic course credits or grades earned 10 or more years prior to the starting date of the semester in which the applicant seeks to enroll. Applicants who decide to apply under this statute may not receive any course credit for courses taken 10 or more years prior to enrollment under academic fresh start.

### **Postgraduate/Professional Programs**

Applicants who have earned baccalaureate degrees under the "academic fresh start" statute, Section 51.931 of the Texas Education Code, and who apply for admission to a postgraduate or

professional program will be evaluated on only the grade-point average of the course of work completed for that baccalaureate degree and the other criteria stated herein for admission to the postgraduate or professional program.

## **Application Deadline and Admission Requirements for International and U.S. Resident Alien Applicants**

An International or U.S. Resident Alien applicant may complete the application online. Since admission requirements vary and are program specific, go to our Web site at <http://grad.uta.edu> for admission criteria specific to each individual department and program. The application and following required credentials should be submitted preferably 120 days prior to the date of expected enrollment: 1) all international students must submit a nonrefundable application evaluation charge of \$70. U.S. Resident Alien applicants WITH foreign college or university work must submit a non-refundable application evaluation charge of \$70. U.S. Resident Alien applicant WITHOUT foreign college or university work must submit a non-refundable application charge of \$40; 2) one set of official marksheets, diplomas or transcripts of all undergraduate and graduate coursework; 3) official GRE or GMAT test score as required by the intended program; 4) official TOEFL or IELTS test score, if applicable; 5) three letters of recommendation; 6) general academic plans; 7) financial and/or immigration documentation as specified in the application instructions.

### **Calculation of the Grade-Point Average (GPA) for Admission Purposes for Students With Degrees From International Colleges and Universities**

The calculation of the GPA for international applicants and U.S. resident aliens who have earned degrees from colleges or universities in the United States follows the policies and procedures for U.S. applicants. The diversity of marksheets and transcripts from foreign universities requires flexibility in calculating approximate equivalents of U.S. GPAs. Generally, GPAs for applicants with foreign degrees are calculated using the final grade for courses taken in the last two years of the applicants' undergraduate program. For an applicant who applies pending receipt of the bachelor's degree, the GPA calculation will include final course grades for the last two years of undergraduate work available at the time the application is submitted for processing. All grades are converted to the U.S. 4-point scale. Pluses and minuses, graduate courses, and personal improvement courses such as physical education are not included in these calculations.

An additional grade-point average is calculated for an applicant awarded or completing a master's or doctoral degree at the time application to UTA is made. For master's level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's degree at the institution from which the degree has been or will be awarded. For doctoral level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's and master's degree at the institution from which the doctoral degree has been or will be awarded. The grade-point average will be calculated on the basis of information provided at the time application to UTA is made and will not be automatically recalculated upon completion of on-going work or award of a degree.

## **Special Admissions Programs**

### **Facilitated Admission of Outstanding UT Arlington Undergraduates**

Upon the recommendation of the Graduate Advisor, outstanding graduates of The University of Texas at Arlington may be admitted to a master's degree program or B.S. to Ph.D. track by facilitated admission. To qualify, the student must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than one academic year prior to the semester for which admission to a graduate program is sought. A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, facilitated admission is conditional upon successful completion of the bachelor's

degree.

2. The student's grade-point average must equal or exceed 3.5 in each of two calculations:
  - a. the grade-point average in the last 60 hours of study as calculated in Graduate Admissions for admission purposes;
  - b. all work completed at UT Arlington to date.

Students who qualify for facilitated admission will be admitted directly to graduate school without completing the application for admission, submitting an application evaluation charge or taking the GRE or GMAT. Students who believe they may qualify for this program should contact the appropriate Graduate Advisor. Some programs may require a higher grade-point average to qualify. Not all graduate programs participate in Facilitated Admission of Outstanding Undergraduates.

### Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates may qualify for waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.
2. The student's UT Arlington grade-point average must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study as calculated for admission by Graduate Admissions; (b) in all undergraduate coursework completed at UT Arlington.

Applicants qualifying for waiver of the GRE who do not qualify for facilitated admission, must comply with all other requirements for admission, i.e., submitting the application for admission, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waiver must be recommended by the Graduate Advisor at the time of admission. The waiver of GRE program applies to applicants for master's degree programs only. Some programs may require higher grade-point averages to qualify. Not all graduate programs participate in the GRE waiver program.

### Fast Track

The Fast Track program is designed to encourage gifted UT Arlington undergraduate students to complete a master's degree at UT Arlington, by enabling them to complete their undergraduate studies without delay and reducing the time and the number of additional courses needed to complete a master's degree. It is available in some graduate programs to outstanding UT Arlington undergraduate students and admission to these programs is highly selective. Participating undergraduate students use a set of courses specified by their graduate program to satisfy both undergraduate bachelor degree and graduate master's degree requirements. Students must formally apply to and be accepted as a Fast Track student by a participating graduate program to receive the full benefits of the program. Admitted students going on to complete all program requirements successfully will be automatically admissible to the associated master's program when they receive their bachelor's degree. They will not have to submit the formal application for admission to Graduate Admissions, pay an application evaluation fee, or take the GRE. Students who do not complete the Fast Track program may apply for admission per regular means but must take all required tests and pay all required fees. Admission in such cases is not automatic and will be based on the published admission requirements of the program applied to all regular applicants. Not all programs offer a Fast Track option. Interested students should consult with their intended program's graduate advisor prior to their senior year for detailed information regarding requirements and application procedures.

### Non-Degree Seeking (Special) Applicants and Graduate Certificate



## Applicants

A person holding a bachelor's degree from a regionally accredited U.S. institution or its foreign equivalent wishing to take graduate courses at The University of Texas at Arlington but not planning to pursue a graduate degree may be admitted as a special non-degree seeking student or graduate certificate student with the approval of Graduate Admissions and concurrence of the Committee on Graduate Studies in the area in which the applicant wishes to study. In most cases, admission as a special non-degree seeking student is granted only for the purpose of participating in special graduate course offerings, or for taking courses to be transferred to another institution. A student who has been denied admission to or been dismissed from graduate school will not be permitted to enroll as a special non-degree seeking or graduate certificate student.

Before submitting an application for admission, an applicant for special non-degree seeking student or graduate certificate should consult with the Graduate Advisor in the department or program in which the graduate course or graduate certificate is offered. Applicants may complete our application online. In addition to the application form applicants must submit an official transcript of previous college work showing evidence of an undergraduate degree and, if applicable, a graduate degree. Special non-degree seeking student admission status is granted for the semester for which the application is submitted. Further enrollment as a special non-degree seeking student must be approved on a semester-by-semester basis. Graduate certificate enrollment is limited to the courses and length of time required to complete the graduate certificate program. Special non-degree students and graduate certificates may not hold graduate assistantships or enroll in research, thesis, internship or dissertation courses.

Up to 12 graduate level (5000 and above) semester credit hours earned as a special non-degree seeking student may be applied to a graduate degree program, subject to the policies on grades and graduate credit described in the General Information and Regulations section of this catalog. Review and approval of the appropriate Committee on Graduate Studies and the approval of Graduate Admissions are required. All grades in courses taken as a special non-degree seeking student and graduate certificate status will be considered in computing a student's graduate grade-point average.

A former or currently enrolled special student or graduate certificate student wishing to apply for admission to a graduate degree program must submit a graduate admissions application online, all supporting documents listed in the Admission section of this catalog, and the appropriate non-refundable application evaluation charge. Admission as a special student or graduate certificate student in no way guarantees subsequent admission into a graduate program in graduate school.

**NOTE:** Immigration regulations do not generally permit international students to study as special non-degree seeking or certificate students. If you are an international student, please contact Graduate Admissions before submitting an application so that eligibility to apply as a special non-degree seeking or graduate certificate student can be determined.

### Changing Starting Semester, Program, or Degree Level Prior to Admission at UT Arlington

Applicants wishing to change the semester in which they plan to start study at UT Arlington, programs in which they wish to be considered for admission, or degree levels for which they initially applied, may request that their application be reprocessed for possible admission by completing the form "Reactivate an Admissions Application". This form is completed online at our Web site <http://grad.uta.edu>. Applicants may submit only one "Reactivate an Admissions Application" at a time. The initial admission decision does not automatically apply when an applicant requests these types of changes to their application. When a request is received, the appropriate non-refundable U.S. Citizen, Resident Alien or International Student application evaluation charge must be paid in order to begin processing the request. Once the fee is paid the application is thoroughly re-evaluated to ensure it is complete and current and a new admission decision will be made.

### Change of Graduate Major, Program, or Degree Level for Current Students

Students wishing to change graduate major, program or degree level (master's or doctoral

classification) from the one in which they are enrolled currently or in which they were enrolled during the most recent semester at UT Arlington, must initiate the change by completing the "Change of Program or Degree Level" form online. Students may submit only one "Change of Program or Degree Level" form at a time. Additional forms will not be processed until a final decision on any prior request has been made. Students intending to change majors should consult the Graduate Advisor of the new program regarding program admission and degree requirements before completing this form. Similarly, students wishing to change degree level should submit the request after discussing the matter with the appropriate Graduate Advisor.

Students wishing to change from one program to a dual degree program must complete the "Change of Program or Degree Level" form online.

The "Change of Program or Degree Level" form is completed online at our Web site <http://grad.uta.edu/students/forms/>.

## Readmission

A student previously enrolled in graduate school at The University of Texas at Arlington, wishing to resume graduate work after an absence of a fall or spring semester or longer (summer excluded) must submit an "Application for Readmission" form online and pay the required non-refundable application evaluation charge. This rule does not apply to a student who withdraws with an Approved Leave of Absence or to a student who withdraws from the university to perform active military service (not including Texas National Guard training exercise). A student returning from an Approved Leave of Absence as scheduled will be automatically readmitted and will not be required to submit an application or pay an application fee. A student withdrawing due to military service will not have to reapply for admission and will be readmitted upon a request made within one year of being released from active military services and may be eligible for the same financial assistance provided before the student's withdrawal (TEC, Section 51.9242).

The "Application for Readmission" is completed online at our Web site <http://grad.uta.edu>. Students may submit only one "Application for Readmission" at a time. A \$30.00 application charge is required of all U.S. Citizen and U.S. Resident Alien applicants who have attempted or completed all of their college or university work at institutions located in the United States. A \$60 evaluation charge is required of all U.S. Citizen and U.S. Resident Alien applicants who have attempted or completed some or all of their coursework at an institution located outside of the United States. A \$60 evaluation charge is required of all International students. Payment must be received before processing can begin. An application evaluation charge is required with each readmission application form submitted. International students and U.S. Resident Alien students should submit this form and pay the required non-refundable evaluation charge 120 days prior to their expected semester of enrollment, and U.S. Citizen students 90 days prior to their expected date of enrollment.

A former student wishing to apply for a dual degree program must complete the "Application for Readmission" form online.

An applicant for readmission should consult with the Graduate Advisor of the program, or the Graduate Advisors of the dual degree programs, before submitting the readmission form and fee to Graduate Admissions. This is particularly important when requesting readmission to a new program or requesting readmission to a dual degree program.

A student who has been dismissed from graduate school for failure to meet the terms of academic probation, provisional admission or other conditions may be readmitted for further graduate study in the same or in a different program or dual degree program only if a Petition to the Graduate Faculty has been approved by the appropriate Committee on Graduate Studies and the Office of Graduate Studies. The Petition to the Graduate Faculty form is available online from the Graduate School Web page at <http://grad.uta.edu>.

An applicant for readmission who has enrolled at other institutions during their absence from UT Arlington (including those in UT Arlington concurrent enrollment) must submit official transcripts showing such coursework to Graduate Admissions.

## Graduate Student Advisement

After being admitted, students should confer (preferably in person) with the Graduate Advisor of their major area to become familiar with specific departmental regulations, particularly those that require additional examinations upon entrance, as well as the details of registration, course selection and other procedures. It is important that a student wishing to take courses for graduate credit consult the appropriate Graduate Advisor before registering, as each student's course of study must be approved by the Graduate Advisor, the Committee on Graduate Studies, the student's supervising committee and the Office of Admissions, Records, and Registration. Failure to consult with the Graduate Advisor could result in the student's enrolling for courses that are not applicable toward meeting graduate degree requirements. Graduate Advisor contact information is available on our Web site <http://grad.uta.edu>.

## Registration

Students should be familiar with all dates on the calendars printed in this catalog or online at [www.uta.edu/uta/acadcal](http://www.uta.edu/uta/acadcal). UT Arlington offers Web registration through MyMav, the University student information system. Specific registration instructions, time tables, class schedules and other information to assist students with registration is published by Admissions, Records, and Registration and is accessible at <http://www.uta.edu> by selecting the Academics link. International applicants should also consult an International Student Advisor in the UT Arlington Office of International Education for registration regulations.

## Restrictions on Admission

### General Restriction

The University of Texas at Arlington may limit the number of students accepted in a program if the number of applicants exceeds the resources needed to support the educational objectives of that program.

### Faculty Members

Members of the UT Arlington faculty holding an appointment at the rank of instructor or above may not pursue a graduate degree at the University.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- [Home](#)
- [Degree Requirements](#)
- [Fields of Study](#)
- [Admissions Requirements & Procedures](#)
- [General Information & Regulations](#)
- [Board of Regents](#)
- [Graduate School](#)
- [Directory of UT Arlington Offices](#)
- [Regulations](#)
- [Tuition & Fees](#)
- [Financial Aid](#)
- [Student Services](#)
- [Graduate Calendar](#)
- [Graduate Faculty](#)
- [Table of Contents](#)
- [Index](#)

## General Information & Regulations

The University of Texas at Arlington

### University Officers

- [Executive Officers](#)
- [Administrative Officers of Academic Units](#)
- [Graduate School Officers](#)

### University Profile

### Mission Statement

### Accreditation

### Government

### Equal Opportunity Policy

### Sexual Harassment, Sexual Misconduct and Consensual Relationships Policy

### UT Arlington/Fort Worth Center

### Center for Distance Education

## University Officers

### Executive Officers

Dr. Vistasp M. Karbhari, President  
 Ronald L. Eisenbaumer, Ph.D., Provost and Vice President for Academic Affairs  
 Carolyn L. Cason, Ph.D., Interim Vice President for Research and Federal Relations  
 John D. Hall, B.B.A., Vice President for Administration and Campus Operations  
 Jean M. Hood, B.S., Vice President for Human Resources  
 Frank Lamas, Ph.D., Vice President for Student Affairs  
 James C. Lewis, M.B.A., Vice President for Development  
 Jerry Lewis, B.S., Vice President for Communications  
 Maurice Leatherbury, Ph.D., Vice President for Information Technology  
 Kelly Davis, B.B.A., Vice President for Business Affairs and Controller

### Administrative Officers of Academic Units

Barbara Becker, Ph.D., Dean, School of Urban and Public Affairs  
 Jean-Pierre Bardet, Ph.D., Dean, College of Engineering  
 Philip Cohen, Ph.D., Dean of Graduate Studies  
 Donald F. Gatzke, M.Arch., Dean, School of Architecture  
 Jeanne Gerlach, Ph.D., Ed.D., Dean, College of Education  
 Daniel D. Himarios, Ph.D., Dean, College of Business

Pamela Jansma, Ph.D., Dean, College of Science  
Michael Moore, Ph.D., Senior Vice Provost and Dean, Undergraduate Studies  
Karl Petruso, Ph.D., Dean, Honors College  
Scott D. Ryan, Ph.D., Dean, School of Social Work  
Elizabeth Poster, Ph.D., Dean, School of Nursing  
Rebeccal Bichel, M.L.I.S., Dean, Library  
Beth S. Wright, Ph.D., Dean, College of Liberal Arts

### Graduate School Officers

Raymond L. Jackson, Ph.D., Graduate Studies

## University Profile

The University of Texas at Arlington is located in the heart of the Dallas/Fort Worth Metroplex, one of the fastest growing areas in the nation. UT Arlington is a Carnegie doctoral-extensive teaching, research and public service university offering an array of baccalaureate, master's, doctoral and professional degrees. A modern 392-acre campus a few blocks from downtown Arlington offers easy access to museums, concerts, ballet, theater, family recreation, professional sports and other amenities.

Founded in 1895 as Arlington College, a private liberal arts institution, UT Arlington has undergone a succession of names, ownerships and missions. The University was elevated to senior college status in 1959 and was transferred from the Texas A&M System to The University of Texas System in 1965. Its final name change came in 1967, when it became The University of Texas at Arlington.

The University of Texas at Arlington has an enrollment of about 34,000 students. The student body is diverse with students representing almost every state in the United States and more than 100 countries. The University's academic units include the School of Architecture, College of Business, College of Education and Health Professions, College of Engineering, Honors College, College of Liberal Arts, College of Nursing, College of Science, School of Social Work, and School of Urban and Public Affairs. Additionally, the Graduate School oversees the administration of academic programs beyond the baccalaureate level.

In response to societal needs, UT Arlington has evolved into a renowned university within the state and one of emerging position nationally and internationally. The University's history of achievement can be attributed to its outstanding faculty; a strong student body; a record of success by graduates in their respective fields; and the growth of the Dallas/Fort Worth area as a nationally and internationally significant metropolis.

## Mission Statement

The University of Texas at Arlington is a comprehensive research, teaching, and public service institution whose mission is the advancement of knowledge and the pursuit of excellence. The University is committed to the promotion of lifelong learning through its academic and continuing education programs and to the formation of good citizenship through its community service learning programs. The diverse student body shares a wide range of cultural values and the University community fosters unity of purpose and cultivates mutual respect.

As a University, we affirm our commitment to the following objectives:

- The University is committed to comprehensive programs of academic research. This research effort requires attracting and retaining scholars who promote a culture of intellectual curiosity, rigorous inquiry, and high academic standards among their fellow faculty and the students they teach.
- The University prepares students for full, productive lives and informed and active citizenship. To that end, we have developed undergraduate and graduate curricula and classroom practices that engage students actively in the learning process. Outside the classroom a wide range of student organizations and activities contribute to the learning environment. Our service learning program offers students the opportunity to supplement

their academic study with internships in a variety of community settings, testing their skills and aptitudes and challenging their values. State-of-the-art teaching technologies, distance education, and off-site instruction afford access to off-campus as well as traditional students. Non-degree certificate and continuing education programs offer practical, aesthetic, and intellectually stimulating opportunities for community learners, for individual courses or a sustained program of study.

- The mission of a university can be achieved only when its students, faculty, staff, and administrators value and promote free expression in an atmosphere of tolerance, responsibility, and trust. The University regards these attributes as prerequisites for any community of learners and vigilantly strives to maintain them.
- Mindful of its role as a resource to the community, locally, nationally, and internationally, the University continually seeks partnerships with public and private concerns in order to advance the economic, social, and cultural welfare of its constituencies. We serve the needs of the North Texas community by sponsoring public lectures and academic symposia, as well as artistic, musical, and dramatic productions.

## Accreditation

The University of Texas at Arlington is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, master's and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation status of The University of Texas at Arlington.

In addition, many of UT Arlington's academic departments and schools have received national accreditation from specific agencies. These accreditations are detailed under the individual listings for departments and schools in this catalog.

Since 1993, students and faculty of The University of Texas at Arlington have benefited from its membership in Oak Ridge Associated Universities. ORAU is a consortium of 98 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of under-represented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at [www.ornl.gov/orise/educ.htm](http://www.ornl.gov/orise/educ.htm), or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.

For more information about ORAU and its programs, contact:

Ronald L. Elsenbaumer  
Vice President for Research  
ORAU Councilor for The University of Texas at Arlington

Monnie E. Champion



ORAU Corporate Secretary (865.576.3306); or  
Visit the ORAU home page ([www.orau.org](http://www.orau.org))

## Government

The government of UT Arlington is vested in a nine-member Board of Regents of The University of Texas System, nominated by the governor and approved by the Senate. The Office of the Chancellor is the chief administrative office of The University of Texas System and is located in Austin. The chief administrative officer of UT Arlington is the University president, under authority of the Office of the Chancellor of the UT System and the Board of Regents. A complete statement of the authority and duties of the Regents and of the several officers, together with an account of the organization of the system, is published in the Rules and Regulations of the Board of Regents of The University of Texas System.

## Equal Opportunity Policy

The University of Texas at Arlington complies with the Equal Pay Act of 1963, Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246, the Age Discrimination in Employment Act of 1967, Title IX of the Educational Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, 1990, the Vietnam Era Veterans Readjustment Act of 1974, the Texas Commission on Human Rights Act and the Rules and Regulations of the Board of Regents of The University of Texas System. It is the policy of The University of Texas at Arlington that to the extent provided by these applicable laws no person shall, on the basis of race, color, national origin, religion, age, sex, disabilities or veteran status, be denied employment or admission, be excluded from participation in, be denied the benefits of or subject to discrimination under, any program or activity that it sponsors or conducts. It is also the University's policy to maintain an environment free from discrimination on the basis of sexual orientation.

Inquiries concerning the application of this policy and complaints of discrimination should be directed to the Office of Equal Opportunity and Affirmative Action, 710 S. Davis Drive, Office and Classroom Building (OCB), Room 103, 817.272.2106. E-mail: [eoaa@uta.edu](mailto:eoaa@uta.edu). Web site: [www.uta.edu/eoaa](http://www.uta.edu/eoaa).

## Sexual Harassment, Sexual Misconduct and Consensual Relationships Policy

The University of Texas at Arlington is committed to an academic and working environment free from inappropriate conduct of a sexual nature. Sexual harassment is a prohibited practice under Title VII of the Civil Rights Act of 1964 for employees as amended by the Equal Employment Opportunity Act of 1973, and the Texas Commission on Human Rights Act for students under Title IX of the Education Amendments of 1972. Sexual harassment, sexual misconduct and consensual relationships between faculty members and the students they currently teach or supervise, and between employees in positions of authority and their subordinates, are prohibited under University policy and are sanctionable.

Sexual harassment includes, but is not limited to, unwelcome sexual advances, requests for sexual favors, insults, sexual threats, innuendoes and other verbal or physical conduct of a sexual nature under circumstances where: 1) submission to such conduct is made either explicitly or implicitly a term or condition of employment (or a student's status in a course, program or activity); 2) submission to or rejection of such conduct by an employee is used as a basis for employment decisions affecting the individual (or in the case of a student, it is used as a basis for academic or other decisions affecting a student); or 3) such conduct has the purpose or effect of unreasonably interfering with the individual's employment (or the student's educational experience), or of creating an intimidating, hostile or offensive academic environment.

Inquiries concerning the application of this policy and complaints of sexual harassment should be directed to the Office of Equal Opportunity and Affirmative Action, 710 S. Davis Drive, Office and Classroom Building (OCB), Room 103, 817.272.2106. Email: [eoaa@uta.edu](mailto:eoaa@uta.edu). For policy and additional information visit Web site: [www.uta.edu/eoaa](http://www.uta.edu/eoaa).

## UT Arlington/Fort Worth Center

UT Arlington/Fort Worth Center strives to serve the Fort Worth community with excellence in accessible, state-of-the-art, and affordable higher education. The Fort Worth Center is committed to:

- meeting the lifelong learning needs of working professionals
- offering graduate programs in convenient times and formats including evenings and weekends
- having the vision and flexibility to capitalize on global opportunities that address the economic development needs of the community
- UT Arlington/Fort Worth Center offers master degree programs tailored for working adults. The Executive MBA cohort program is designed for upper-level executives and can be completed in 15 months. The cohort-based MBA program starts every fall and spring semester and takes 24 months to complete. The cohort-based Master of Science in Healthcare Administration spans 24 months. The Scholars of Practice (M.Ed.) program is uniquely designed for graduate students seeking their Master of Education degree with Texas principal certification. This field-based administrator preparation experience spans five consecutive university semesters over an 18-month period. The Master of Science in Systems Engineering is a 36-hour program offered by the College of Engineering that consists of classroom and online instruction. The program takes 24 months to complete. The Master of Science in Information Systems provides managers of various functional business areas the necessary knowledge to effectively interface with the Information Technology organization and can be completed in just 17 months. The School of Urban and Public Affairs offers a Master of Public Administration cohort at the Fort Worth Center. The degree can be completed in 24 months and is focused on Urban Management. The Master of Arts in Criminology and Criminal Justice cohort program at the Center can be completed in 24 months. The Master of Science in Social Work is now being offered at the Fort Worth Center, which can be completed in 24 months. The Master of Science in Real Estate program accepts students every semester and can be completed in as little as one year. A sustainability concentration is offered in the MS in Real Estate program and is available in Dallas and Fort Worth. These UT Arlington/Fort Worth Center graduate programs are the highest quality and most affordable of their kind in the Tarrant County region.
- In addition, UT Arlington/Fort Worth Center provides select non-credit professional development and continuing education courses in downtown Fort Worth. The Center's Gallery 76102 is a community art space exhibiting contemporary work from local artists. Since its opening it has become an integral part of the Fort Worth art community.
- UT Arlington/Fort Worth Center has an excellent central location in downtown Fort Worth at 1401 Jones Street, Fort Worth, Texas 76102. Please access the UT Arlington/Fort Worth Center's Web site, [www.uta.edu/fortworth](http://www.uta.edu/fortworth), for more information. The main information phone number is 817.272.5988.

### Center for Distance Education

The Center for Distance Education serves as an information and coordination site for distributed education efforts at UT Arlington. University undergraduate and graduate courses and degree programs are delivered off-campus in numerous electronic formats, including videotape/DVD, videoconferencing and via the Internet. Center staff promote and support the use of both established and emerging digital tools for teaching and learning.

For more information on the Center for Distance Education, located at 201A E. Abram St., call 817.272.5727 or 888-UTA-DIST. Fax: 817-272-5728. E-mail: [info@distance.uta.edu](mailto:info@distance.uta.edu). Web site: <http://distance.uta.edu>.



The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**

**APPLY**

# OFFICIAL UNIVERSITY ACADEMIC CALENDAR

Spring 2021

## 2020

**Apr. 6**

Registration Begins for Spring 2021 Term Regular Session - 1000  
& 2000 Level Courses Only

**Nov. 1**

Registration Temporarily Closed

**Nov. 9**

Registration Resumes - Priority Registration Begins

**Nov. 23**

Open Registration Begins

## 2021

**Jan. 1**

New Year's Day Holiday

**Jan. 18**

Martin Luther King Jr. Day Holiday

**Jan. 18**

Registration Ends for Spring Term - Regular Session

**Jan. 19**

First day of classes

**Jan. 19**

Late registration

**Jan. 20**

Late registration

**Jan. 21**

Late registration

**Jan. 22**

Late registration

**Feb. 3**

Census date

**Mar. 15**

Spring Vacation

**Mar. 16**

Spring Vacation

**Mar. 17**

Spring Vacation

**Mar. 18**

Spring Vacation

**Mar. 19**

Spring Vacation

**Mar. 20**

Spring Vacation

**Apr. 2**

Last day to drop classes; submit requests to advisor prior to 4:00pm

**Apr. 5**

Registration begins for Summer 2021 & Fall 2021 terms

**May 4**

Last day of classes

**May 5**

Student Study Day (no classes)

**May 6**

Final exams

**May 7**

Final exams

## May 8

Final exams (departmental)

## May 11

Final exams

## May 12

Final exams

## May 13

Commencement ceremonies

## May 14

Commencement ceremonies

## May 15

Commencement ceremonies

### RELATED LINKS

[FINAL EXAM SCHEDULES](#)

[ADMISSIONS DEADLINES](#)

[REGISTRATION TIMETABLES](#)

[ABOUT COMMENCEMENT](#)

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

[Contact Us](#)

[People Directory](#)

[Campus Maps](#)

[Careers](#)

[Help](#)

The University of Texas at Arlington  
701 S. Nedderman Drive  
Arlington, TX 76019  
817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal](#)

Disclosures

© 2021 The University of Texas at Arlington





UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

## Graduate Faculty

Unable to connect to database.



# 2013-2014 Graduate Catalog

## Table of Contents

### 2013-2014 Graduate Catalog – Home

- **Degree Requirements**
  - **Master's Degree Requirements**
  - **Dual Degree Requirements**
  - **Doctoral Degree Requirements**
- **Fields of Study**
  - **School of Architecture**
    - **Architecture**
    - **Landscape Architecture**
  - **College of Business**
    - **Accounting**
    - **Business Administration**
    - **Economics**
    - **Finance and Real Estate**
    - **Health Care Administration**
    - **Information Systems & Operations Management**
    - **Management**
    - **Marketing**
  - **College of Education and Health Professions**
    - **Curriculum and Instruction**
    - **Educational Leadership and Policy Studies**
    - **Kinesiology**
  - **College of Engineering**
    - **Bioengineering**
    - **Civil Engineering**
    - **Computer Science and Engineering**
    - **Electrical Engineering**
    - **Industrial and Manufacturing Systems Engineering**
    - **Materials Science and Engineering**
    - **Mechanical & Aerospace Engineering**
  - **College of Liberal Arts**
    - **Art + Art History**

- **Communication**
- **Criminology & Criminal Justice**
- **English**
- **History**
- **Humanities**
- **Modern Languages**
- **Linguistics**
- **Music**
- **Philosophy & Humanities**
- **Political Science**
- **Sociology and Anthropology**
- **Theatre Arts**
- **College of Nursing**
  - **Nursing - MSN, DNP, & PhD**
- **College of Science**
  - **Biology**
  - **Chemistry & Biochemistry**
  - **Earth and Environmental Sciences**
  - **Interdisciplinary Science**
  - **Mathematics**
  - **Physics**
  - **Psychology**
- **School of Social Work**
  - **Social Work - MSSW & PhD**
- **School of Urban and Public Affairs**
  - **Public Administration**
  - **Urban and Public Affairs**
  - **City and Regional Planning**
- **Admissions Requirements & Procedures**
  - **Proposed Admissions Changes Effective August 2014**
- **General Information & Regulations**
  - **Board of Regents**
  - **Graduate School**
  - **Directory of UT Arlington Offices**
  - **Regulations**
  - **Tuition & Fees**
  - **Financial Aid**
  - **Student Services**
- **Graduate Calendar**
- **Graduate Faculty**
- **Index**

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Index

[A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#)

### A

- [Academic Calendar](#) – all mentions >>
- [Academic Counseling](#) – all mentions >>
- [Academic Dishonesty](#) – all mentions >>
- [Academic Fresh Start](#) – all mentions >>
- [Accounting](#) – all mentions >>
- [Accreditation, UT Arlington](#) – all mentions >>
- [Adding and Dropping Courses](#) – all mentions >>
- [Administration, UT Arlington](#) – all mentions >>
- [Admission](#) – all mentions >>
  - [Calculation of Grade Point Average](#) – all mentions >>
  - [Deferred](#) – all mentions >>
  - [Denied](#) – all mentions >>
  - [Documentation Requirements](#) – all mentions >>
  - [Graduate Student Advisement](#) – all mentions >>
  - [International Students](#) – all mentions >>
  - [Outstanding Undergraduates](#) – all mentions >>
  - [Procedures, Admissions](#) – all mentions >>
  - [Readmission](#) – all mentions >>
  - [Registration Schedule](#) – all mentions >>
  - [Resident Alien Students](#) – all mentions >>
  - [Restrictions on Admission](#) – all mentions >>
    - [Faculty](#) – all mentions >>
    - [General](#) – all mentions >>
  - [Special Programs](#) – all mentions >>
  - [Test Information](#) – all mentions >>
  - [Types of Admission](#) – all mentions >>
    - [Probationary](#) – all mentions >>
    - [Provisional](#) – all mentions >>

- [Unconditional](#) – all mentions >>
- [United States Students](#) – all mentions >>
- [Advanced Degree Programs, Administration of](#) – all mentions >>
- [Advanced Degrees and Requirements](#) – all mentions >>
- [Advisement](#) – all mentions >>
- [Advisors, Graduate](#) – all mentions >>
- [Aerospace Engineering, Mechanical and](#) – all mentions >>
- [Anthropology](#) – all mentions >>
- [Application Evaluation Charges](#) – all mentions >>
  - [International](#) – all mentions >>
  - [U.S.](#) – all mentions >>
- [Application Materials, Retention of](#) – all mentions >>
- [Architecture, School of](#) – all mentions >>
  - [Architecture, Program in](#) – all mentions >>
  - [Landscape Architecture, Program in](#) – all mentions >>
- [Archival Administration Certificate](#) – all mentions >>
- [Art + Art History](#) – all mentions >>
- [Assessment Services](#) – all mentions >>
- [Assistantship/Associateship Policy](#) – all mentions >>
- [Audit of a Student's Schedule and Fee Audit Adjustments](#) – all mentions >>
- [Auditing Courses](#) – all mentions >>

## B

- [Bacterial Meningitis](#) – all mentions >>
- [Bilingual Education Center](#) – all mentions >>
- [Biochemistry](#) – all mentions >>
- [Biology](#) – all mentions >>
- [Bioengineering](#) – all mentions >>
- [Board of Regents, UT System](#) – all mentions >>
- [Bursar Services](#) – all mentions >>
- [Business, College of](#) – all mentions >>
  - [Accounting](#) – all mentions >>
  - [Business Administration, M.B.A. Program](#) – all mentions >>
  - [Business Administration, Ph.D. Program](#) – all mentions >>
  - [Economics](#) – all mentions >>
  - [Finance and Real Estate](#) – all mentions >>
  - [Health Care Administration](#) – all mentions >>
  - [Information Systems and Operations Management](#) – all mentions >>
  - [Management](#) – all mentions >>
  - [Marketing](#) – all mentions >>

## C

- [Calendar](#) – all mentions >>
- [Campus Facilities, Use of](#) – all mentions >>
- [Campus Recreation](#) – all mentions >>
- [Campus Solicitations](#) – all mentions >>
- [Campus Security](#) – all mentions >>
- [Candidacy](#) – all mentions >>
  - [Doctoral Degree](#) – all mentions >>
  - [Master's Degree](#) – all mentions >>
- [Career Development](#) – all mentions >>
- [Career Services](#) – all mentions >>
- [Center for Bilingual Education](#) – all mentions >>
- [Center for Criminal Justice Research and Training](#) – all mentions >>
- [Center for Distance Education](#) – all mentions >>
- [Center for Hispanic Studies in Nursing and Health](#) – all mentions >>
- [Center for Mexican American Studies \(CMAS\)](#) – all mentions >>
- [Center for Multicultural Cooperation \(CMC\)](#) – all mentions >>
- [Center for Nursing Scholarship and Technology](#) – all mentions >>
- [Center for Post-Soviet and East European Studies](#) – all mentions >>
- [Center for Psychopharmacology Education and Research](#) – all mentions >>
- [Center for Science Education](#) – all mentions >>  
*See also [College of Education and Health Professions](#).*
- [Certificates Offered](#) – all mentions >>
- [Certified Public Management Program](#) – all mentions >>
- [Changing Courses](#) – all mentions >>
- [Change of Graduate Major or Program](#) – all mentions >>
- [Cheating](#) – all mentions >>
- [Check Cashing Policy](#) – all mentions >>
- [Checks, Returned](#) – all mentions >>
- [Chemistry and Biochemistry](#) – all mentions >>
- [City and Regional Planning](#) – all mentions >>
- [Civil Engineering](#) – all mentions >>
- [CMC](#) – all mentions >>  
*See [Center for Multicultural Cooperation](#).*
- [Code of Honor](#) – all mentions >>  
*See [Honor Code](#).*
- [College of Business](#) – all mentions >>
  - [Accounting](#) – all mentions >>
  - [Business Administration, M.B.A. Program](#) – all mentions >>
  - [Business Administration, Ph.D. Program](#) – all mentions >>
  - [Economics](#) – all mentions >>
  - [Finance and Real Estate](#) – all mentions >>

[all mentions >>](#)

- [Health Care Administration](#) –
  - [Information Systems and Operations Management](#) – all mentions >>
  - [Management](#) – all mentions >>
  - [Marketing](#) – all mentions >>
- [College of Education and Health Professions](#) – all mentions >>
  - [Curriculum and Instruction](#) – all mentions >>
  - [Educational Leadership and Policy Studies](#) – all mentions >>
  - [Kinesiology](#) – all mentions >>
- [College of Engineering](#) – all mentions >>
  - [Bioengineering](#) – all mentions >>
  - [Civil and Environmental Engineering](#) – all mentions >>
  - [Computer Science and Engineering](#) – all mentions >>
  - [Electrical Engineering](#) – all mentions >>
  - [Industrial and Manufacturing Systems Engineering](#) – all mentions >>
  - [Materials Science and Engineering](#) – all mentions >>
  - [Mechanical and Aerospace Engineering](#) – all mentions >>
- [College of Liberal Arts](#) – all mentions >>
  - [Art + Art History](#) – all mentions >>
  - [Communication](#) – all mentions >>
  - [Criminology and Criminal Justice](#) – all mentions >>
  - [English](#) – all mentions >>
  - [History](#) – all mentions >>
  - [Linguistics](#) – all mentions >>
  - [Modern Languages](#) – all mentions >>
  - [Music](#) – all mentions >>
  - [Philosophy and Humanities](#) – all mentions >>
  - [Political Science](#) – all mentions >>
  - [Sociology and Anthropology](#) – all mentions >>
  - [Theatre Arts](#) – all mentions >>
- [College of Nursing](#) – all mentions >>
- [College of Science](#) – all mentions >>
  - [Biology](#) – all mentions >>
  - [Chemistry and Biochemistry](#) – all mentions >>
  - [Earth and Environmental Sciences](#) – all mentions >>
  - [Interdisciplinary Science](#) – all mentions >>
  - [Mathematics](#) – all mentions >>
  - [Physics](#) – all mentions >>
  - [Psychology](#) – all mentions >>
- [Committees on Graduate Studies](#) – all mentions >>
- [Committees, Supervising for Master's](#) – all mentions >>
- [Communication](#) – all mentions >>
- [Computer Science and Engineering](#) – all mentions >>

- [Concurrent Enrollment](#) – all mentions >>
- [Conduct and Discipline](#) – all mentions >>
- [Consensual Relationships Policy](#) – all mentions >>
- [Correspondence Courses](#) – all mentions >>
- [Counseling, Academic](#) – all mentions >>
- [Counseling, Financial](#) – all mentions >>
- [Counseling, Personal](#) – all mentions >>
- [Counseling Services](#) – all mentions >>
- [Course Auditing](#) – all mentions >>
- [Course Changes](#) – all mentions >>
- [Course Designation System](#) – all mentions >>
- [Course Load](#) – all mentions >>
- [Course Descriptions](#) – all mentions >>  
*See individual program descriptions.*
- [Course Transfer Credit](#) – all mentions >>
- [Course Withdrawal](#) – all mentions >>
- [Courses, General](#) – all mentions >>
  - [Applicability to More than One Degree](#) – all mentions >>
  - [Auditing](#) – all mentions >>
  - [Changes](#) – all mentions >>
  - [Correspondence](#) – all mentions >>
  - [Designation System](#) – all mentions >>
  - [Drops and Adds](#) – all mentions >>
  - [Enrollment by Undergraduate with Bachelor's Degree](#) – all mentions >>
  - [Extension](#) – all mentions >>
  - [Grade Requirements](#) – all mentions >>
  - [Load](#) – all mentions >>
  - [Reservation for Graduate Credit](#) – all mentions >>
  - [Transfer Credit](#) – all mentions >>
  - [Withdrawal](#) – all mentions >>
- [Credit, Course](#) – all mentions >>
- [Credit by Examination](#) – all mentions >>
- [Credit, Transfer](#) – all mentions >>
- [Criminology and Criminal Justice](#) – all mentions >>

## D

- [Dallas/Fort Worth Metroplex](#) – all mentions >>
- [Deadlines, Graduate School](#) – all mentions >>
- [Deans, Academic](#) – all mentions >>
- [Deferred Admission](#) – all mentions >>
- [Degree Requirements](#) – all mentions >>  
*See [Master's Degree Requirements](#), [Doctoral Degree Requirements](#) or individual program descriptions.*



- [Degree Plans, Master's](#) – all mentions >>  
*See also individual program descriptions.*
- [Denied Admission](#) – all mentions >>
- [Developmental English Program](#) – all mentions >>
- [Development Review Certificate](#) – all mentions >>
- [Diplomas](#) – all mentions >>
- [Directory of Offices](#) – all mentions >>
- [Disclaimer](#) – all mentions >>
- [Discipline, Student](#) – all mentions >>
- [Dissertations](#) – all mentions >>
- [Distance Learning Charges](#) – all mentions >>
- [Doctoral Degrees Offered](#) – all mentions >>
- [Doctoral Degree Requirements](#) – all mentions >>
  - [Candidacy](#) – all mentions >>
  - [Comprehensive Examination](#) – all mentions >>
  - [Credit for, Registration](#) – all mentions >>
  - [Diagnostic Evaluation](#) – all mentions >>
  - [Dissertation](#) – all mentions >>
  - [Dissertation Defense](#) – all mentions >>
  - [Dissertation Requirements](#) – all mentions >>
  - [Foreign Language Requirement](#) – all mentions >>
  - [General](#) – all mentions >>
  - [Graduate Program Degree Requirements](#) – all mentions >>
  - [Manuals for Students](#) – all mentions >>
  - [Registration in Doctoral Courses](#) – all mentions >>
  - [Residence](#) – all mentions >>
  - [Time Limit](#) – all mentions >>
- [Dropping Courses](#) – all mentions >>
- [Dual Degree Programs](#) – all mentions >>

## E

- [Earth & Environmental Sciences](#) – all mentions >>
- [Economics](#) – all mentions >>
- [Education and Health Professions, College of](#) – all mentions >>
  - [Curriculum and Instruction](#) – all mentions >>
  - [Educational Leadership and Policy Studies](#) – all mentions >>
  - [Kinesiology](#) – all mentions >>
- [Educational Records Policy](#) – all mentions >>
- [Electrical Engineering](#) – all mentions >>
- [Emissions Inspections](#) – all mentions >>
- [Engineering, College of](#) – all mentions >>

[all mentions >>](#)

- [Bioengineering](#) –
- [Civil and Environmental Engineering](#) – all mentions >>
- [Computer Science and Engineering](#) – all mentions >>
- [Electrical Engineering](#) – all mentions >>
- [Industrial and Manufacturing Systems Engineering](#) – all mentions >>
- [Materials Science and Engineering](#) – all mentions >>
- [Mechanical and Aerospace Engineering](#) – all mentions >>
- [English](#) – all mentions >>
- [English Proficiency](#) – all mentions >>
- [English Skills Program, Graduate](#) – all mentions >>
- [Enrollment, Concurrent](#) – all mentions >>
- [Enrollment Loans](#) – all mentions >>
- [Enrollment by Undergraduate with Bachelor's Degree](#) – all mentions >>
- [Environmental Science and Engineering, Graduate Studies in](#) – all mentions >>
- [Environmental Science Certificate](#) – all mentions >>
- [Equal Opportunity Policy](#) – all mentions >>
- Examinations
  - [Doctoral](#) – all mentions >>
  - [Master's](#) – all mentions >>
- *See also individual program descriptions.*
- [Exercise, Sport and Health Studies](#) – all mentions >>  
*See [Kinesiology](#).*
- [Expenses](#) – all mentions >>  
*See [Tuition & Fees](#).*
- [Extension Work](#) – all mentions >>

## F

- [Facilities, Campus](#) – all mentions >>
- [Faculty, Graduate](#) – all mentions >>
- [Family Educational Rights and Privacy Act \(FERPA\)](#) – all mentions >>
- [Federal Perkins Loan](#) – all mentions >>
- [Federal Stafford Loan](#) – all mentions >>
- [Federal Work-Study Program](#) – all mentions >>
- [Fees and Charges](#) – all mentions >>
- [Final Semester Requirements](#) – all mentions >>
- [Finance and Real Estate](#) – all mentions >>
- [Financial Aid](#) – all mentions >>
  - [Assistance Based on Need](#) – all mentions >>
  - [Federal Perkins Loan](#) – all mentions >>
  - [Federal Stafford Loan](#) – all mentions >>
  - [Federal Work-Study](#) – all mentions >>
  - [Financial Counseling](#) – all mentions >>

- [Out-of-State Student Assistance](#) – all mentions >>
- [Veterans' Assistance](#) – all mentions >>
- [Foreign Country Transcripts or Marksheets and Diplomas](#) – all mentions >>
- [Foreign Language Requirement, Master's Degree](#) – all mentions >>
- [Foreign Language Requirement, Ph.D.](#) – all mentions >>
- [Fort Worth Center](#) – all mentions >>
- [French](#) – all mentions >>
- [Fresh Start, Academic](#) – all mentions >>

## G

- [Geographic Information Systems Certificate](#) – all mentions >>
- [Geographic Information Systems Certificate in Spatial Information Systems](#) – all mentions >>
- [German](#) – all mentions >>
- [Good Standing, Academic](#) – all mentions >>
- [Grade-Point Average](#) – all mentions >>
  - [Calculation for Admission](#) – all mentions >>
  - [Academic Probation](#) – all mentions >>
  - [Graduation](#) – all mentions >>
- [Grades](#) – all mentions >>
  - [Credit for Research, Internship, Thesis, Dissertation](#) – all mentions >>
  - [Grievances](#) – all mentions >>
  - ["R" Grade](#) – all mentions >>
  - [Graduate Advanced Studies Certificate](#) – all mentions >>
  - [Graduate Advisors](#) – all mentions >>
  - [Graduate Assistantship/Associateship Policy](#) – all mentions >>
  - [Additional Employment](#) – all mentions >>
  - [Admission Status](#) – all mentions >>
  - [Assignment of Duties](#) – all mentions >>
  - [Continuation or Renewal](#) – all mentions >>
  - [Course Load](#) – all mentions >>
  - [Developmental English Program](#) – all mentions >>
  - [English Proficiency](#) – all mentions >>
  - [Tuition Rates](#) – all mentions >>
- [Graduate English Skills Program](#) – all mentions >>
- [Graduate Faculty](#) – all mentions >>
  - [Waiver of the Graduate Record Examination](#) – all mentions >>
- [Graduate School](#) – all mentions >>
  - [Administrative Officers](#) – all mentions >>
  - [History and Overview](#) – all mentions >>
  - [Mission and Philosophy](#) – all mentions >>
  - [Web Site](#)

- [Graduate School Deadlines](#) – all mentions >>
- [Graduate School Regulations, General](#) – all mentions >>
- [Graduate Studies in Environmental Science and Environmental Engineering](#) – all mentions >>
- [Graduation Procedures](#) – all mentions >>
- [Graduation Rates](#) – all mentions >>
- [Graduation Requirements](#) – all mentions >>
- [Grievances Other than Grades](#) – all mentions >>
- [Grievances Related to Grades](#) – all mentions >>

## H

- [Hazardous Materials and Waste Management Certificate](#) – all mentions >>
- [Hazing](#) – all mentions >>
- [Health Care Administration](#) – all mentions >>
- [Health Insurance](#) – all mentions >>
  - [International Student](#) – all mentions >>
- [Health Services, Student](#) – all mentions >>
- [Hepatitis B](#) – all mentions >>
- [History](#) – all mentions >>
- [HIV Testing](#) – all mentions >>
- [Honor Code](#) – all mentions >>
- [Housing](#) – all mentions >>
- [Human Resource Management](#) – all mentions >>
- [Humanities Program](#) – all mentions >>

## I

- [In Absentia Registration](#) – all mentions >>
- [In Absentia Registration Fee](#) – all mentions >>
- [Incomplete Grade Policy](#) – all mentions >>
- [Industrial and Manufacturing Systems Engineering](#) – all mentions >>
- [Information Systems](#) – all mentions >>
- [Installment Payment Option](#) – all mentions >>
- [Intercampus Programs](#) – all mentions >>
  - [Environmental Science and Engineering](#) – all mentions >>
  - [Logistics](#) – all mentions >>
  - [Engineering Management](#) – all mentions >>
  - [Materials Science and Engineering](#) – all mentions >>
- [International Students](#) – all mentions >>
  - [Admission](#) – all mentions >>
  - [Application Evaluation Charge](#) – all mentions >>
  - [Health Insurance](#) – all mentions >>

[Calculation of Grade Point Average for Admission](#) – all mentions >>

- [Orientation](#) – all mentions >>
- [Registration](#) – all mentions >>
- [Service Charge](#) – all mentions >>
- [Intramural Sports](#) – all mentions >>

## K

- [Kinesiology](#) – all mentions >>

## L

- [Landscape Architecture](#) – all mentions >>
- [Late Registration Charge](#) – all mentions >>
- [Law and Public Policy Certificate](#) – all mentions >>
- [Liberal Arts, College of](#) – all mentions >>
  - [Art + Art History](#) – all mentions >>
  - [Communication](#) – all mentions >>
  - [Criminology and Criminal Justice](#) – all mentions >>
  - [English](#) – all mentions >>
  - [History](#) – all mentions >>
  - [Linguistics](#) – all mentions >>
  - [Modern Languages](#) – all mentions >>
  - [Music](#) – all mentions >>
  - [Philosophy and Humanities](#) – all mentions >>
  - [Political Science](#) – all mentions >>
  - [Sociology and Anthropology](#) – all mentions >>
  - [Theatre Arts](#) – all mentions >>
- [Linguistics](#) – all mentions >>
- [Living Accommodations](#) – all mentions >>  
*See [Housing](#).*
- [Loans](#) – all mentions >>
- [Logistics](#) – all mentions >>

## M

- [M.B.A. Program](#) – all mentions >>
  - [Accelerated M.B.A.](#) – all mentions >>
  - [Executive M.B.A.](#) – all mentions >>
  - [Online M.B.A.](#) – all mentions >>
- [Management](#) – all mentions >>
- [Engineering Management](#) – all mentions >>
- [Manufacturing Systems Engineering](#) – all mentions >>

- [Maps](#) – all mentions >>
- [Marketing Research](#) – all mentions >>
- [Marksheets](#) – all mentions >>
- [Master of Arts](#) – all mentions >>
- [Master's Degree Plans](#), Available (thesis, thesis substitute, non-thesis) – all mentions >>  
*See also individual program descriptions.*
- Master's Degree
  - [Candidacy](#) – all mentions >>
  - [Degree Plans](#) (thesis, thesis substitute, non-thesis) – all mentions >>
  - [Final Examination](#) – all mentions >>
  - [Foreign Language Requirement](#) – all mentions >>
  - [Graduate Program Degree Requirements](#) – all mentions >>
  - [Hours Required](#) – all mentions >>
  - [Manuals for Students](#) – all mentions >>
  - [Requirements, General](#) – all mentions >>
  - [Residence](#) – all mentions >>
  - [Supervising Committees](#) – all mentions >>
  - [Thesis](#) – all mentions >>
    - [Credit for Thesis](#) – all mentions >>
  - [Time Limit](#) – all mentions >>
  - [Undergraduate Preparation](#) – all mentions >>
- [Master's Degrees Offered](#) – all mentions >>
- [Materials Science and Engineering](#) – all mentions >>
- [Mathematical Sciences](#) – all mentions >>
- [Mathematics](#) – all mentions >>
- [Mav Express Card](#) – all mentions >>
- [Maverick Parking Garage](#) – all mentions >>
- [Mechanical and Aerospace Engineering](#) – all mentions >>
- [Minority Mentor Project](#) – all mentions >>
- [Mission Statement, UT Arlington](#) – all mentions >>
- [Modern Languages](#) – all mentions >>
  - [French](#) – all mentions >>
  - [Spanish](#) – all mentions >>
- [Multicultural Cooperation, Center for \(CMC\)](#) – all mentions >>
- [Multicultural Services](#) – all mentions >>
- [Music](#) – all mentions >>

## N

- [Non-Resident Tuition](#) – all mentions >>
- Non-Thesis Degree Plan – all mentions >>
  - [Degree Plans & Hours Required](#) – all mentions >>

[all mentions >>](#)

**Final Master's Examination** –

- **Nursing Certificates**
  - **Master's** – [all mentions >>](#)
  - **Post-Master's** – [all mentions >>](#)
- **Nursing, College of** – [all mentions >>](#)

**O**

- **Office for Students with Disabilities** – [all mentions >>](#)
- **Office of International Education** – [all mentions >>](#)
- **Office of Research and Graduate Studies** – [all mentions >>](#)  
*See [Graduate School](#).*
- **Offices, Directory of** – [all mentions >>](#)
- **Official Transcripts, Marksheets, Diplomas and Test Scores** – [all mentions >>](#)
- **Operations Management** – [all mentions >>](#)
- **Orientation, International Students** – [all mentions >>](#)
- **Out-of-State Student Assistance** – [all mentions >>](#)

**P**

- **Parking Permit Charge** – [all mentions >>](#)
- **Parking Garage** – [all mentions >>](#)
- **Peer Education** – [all mentions >>](#)
- **Perkins Loan** – [all mentions >>](#)
- **Personal Counseling** – [all mentions >>](#)
- **Petitions** – [all mentions >>](#)
- **Petroleum Geoscience Certificate** – [all mentions >>](#)
- **Ph.D. Degrees Offered** – [all mentions >>](#)
- **Ph.D. Degree Requirements** – [all mentions >>](#)
  - **Candidacy** – [all mentions >>](#)
  - **Comprehensive Examination** – [all mentions >>](#)
  - **Diagnostic Evaluation** – [all mentions >>](#)
  - **Dissertation** – [all mentions >>](#)
  - **Dissertation Defense** – [all mentions >>](#)
  - **Dissertation Requirements** – [all mentions >>](#)
  - **Foreign Language Requirement** – [all mentions >>](#)
  - **General** – [all mentions >>](#)
  - **Manuals for Students** – [all mentions >>](#)
  - **Registration in Doctoral Courses** – [all mentions >>](#)
  - **Residence** – [all mentions >>](#)
  - **Time Limit** – [all mentions >>](#)
  - **Philosophy and Humanities** – [all mentions >>](#)
- **Physical Education** – [all mentions >>](#)

See [Kinesiology](#).

- [Physics](#) – all mentions >>
- [Plagiarism](#) – all mentions >>
- [Political Science](#) – all mentions >>
- [Probation, Academic](#) – all mentions >>
- [Probationary Admission](#) – all mentions >>
- [Professional Teacher Education](#) – all mentions >>  
See [College of Education and Health Professions](#).
- [Provisional Admission](#) – all mentions >>
- [Program Manuals](#) – all mentions >>
  - [Master's](#) – all mentions >>
  - [Doctoral](#) – all mentions >>
- [Psychology](#) – all mentions >>
- [Public Administration](#) – all mentions >>

## Q

- [QUEST Wellness Program](#) – all mentions >>

## R

- ["R" Grade](#) – all mentions >>
- [Readmission](#) – all mentions >>
- [Real Estate](#) – all mentions >>  
See [Finance and Real Estate](#).
- [Real Estate Development Graduate Certificate](#) – all mentions >>
- [Records Policy, Student](#) – all mentions >>
- [Records Retention](#) – all mentions >>  
See [Retention of Application Materials](#).
- [Recreational Sports](#) – all mentions >>  
See [Campus Recreation](#).
- [Refunds](#) – all mentions >>
- [Refunds, Disbursement of](#) – all mentions >>
- [Regents, Board of](#) – all mentions >>
- [Registration](#) – all mentions >>
  - [In Absentia](#) – all mentions >>
  - [International Students](#) – all mentions >>
  - [Late Charge](#) – all mentions >>
  - [Schedule](#) – all mentions >>
- [Regulations, General Graduate School](#) – all mentions >>
- [Required Fees](#) – all mentions >>
- [Requirements for the Doctor of Philosophy Degree](#) – all mentions >>
- [Requirements for Final Semester](#) – all mentions >>
- [Requirements for the Master's Degree](#) – all mentions >>



- [Reservation of Courses for Graduate Credit](#) – all mentions >>
- [Residency, Doctoral Degree Candidates](#) – all mentions >>
- [Residency, Master's Degree Candidates](#) – all mentions >>
- [Residency Regulations](#) – all mentions >>
  - [Resident Alien Students, Admission](#) – all mentions >>
  - [Calculation of Grade Point Average](#) – all mentions >>
- [Resident Tuition](#) – all mentions >>
- [Restrictions on Admission](#) – all mentions >>
- [Retention of Application Materials](#) – all mentions >>
- [Returned Checks](#) – all mentions >>
- [Right-to-Know Act, Student](#) – all mentions >>

## S

- [Schedule Audit](#) – all mentions >>
- [School of Architecture](#) – all mentions >>
  - [Architecture, Program in](#) – all mentions >>
  - [Landscape Architecture, Program in](#) – all mentions >>
- [School of Social Work](#) – all mentions >>
  - [Doctor of Philosophy](#) – all mentions >>
  - [Master of Science](#) – all mentions >>
- [School of Urban and Public Affairs](#) – all mentions >>
  - [Public Administration](#) – all mentions >>
  - [Urban and Public Affairs](#) – all mentions >>
  - [City and Regional Planning](#) – all mentions >>
- [Science, College of](#) – all mentions >>
  - [Biology](#) – all mentions >>
  - [Chemistry and Biochemistry](#) – all mentions >>
  - [Earth and Environmental Sciences](#) – all mentions >>
  - [Interdisciplinary Science](#) – all mentions >>
  - [Mathematics](#) – all mentions >>
  - [Physics](#) – all mentions >>
  - [Psychology](#) – all mentions >>
- [Science Education Center](#) – all mentions >>
- [Security, Campus](#) – all mentions >>
- [Selective Service Registration](#) – all mentions >>
- [Sexual Harassment Policy](#) – all mentions >>
- [Sexual Misconduct](#) – all mentions >>
- [Social Work, School of](#) – all mentions >>
  - [Doctor of Philosophy](#) – all mentions >>
  - [Master of Science](#) – all mentions >>
- [Sociology](#) – all mentions >>

- [Solicitations, Campus](#) – all mentions >>
- [Southern Association of Colleges and Schools \(SACS\)](#) – all mentions >>
- [Spanish](#) – all mentions >>
- [Spatial Information Systems Certificate](#) – all mentions >>
- [SPEAK Examination](#) – all mentions >>
  - [Developmental English Program](#) – all mentions >>
  - [Assistanships](#) – all mentions >>
- [Special Admissions Programs](#) – all mentions >>
- [Sport Clubs](#) – all mentions >>
- [Stafford Loan](#) – all mentions >>
- [Student Conduct and Discipline](#) – all mentions >>
- [Student Educational Records Policy](#) – all mentions >>
- [Student Employment Services](#) – all mentions >>
- [Student Health Services](#) – all mentions >>  
*See [Health Services](#).*
- [Student Right-to-Know and Campus Security Act](#) – all mentions >>
- [Student Responsibility](#) – all mentions >>
- [Student Services](#) – all mentions >>
- [Student Travel Policy](#) – all mentions >>
- [Summary of Graduate Tuition, Fees, and Charges](#) – all mentions >>
- [Supervising Committees, Master's](#) – all mentions >>
- [Systems Engineering](#) – all mentions >>

## T

- [Taxation, Certificate in](#) – all mentions >>
- [Taxation, Master of Science](#) – all mentions >>
- [Teacher Education](#) – all mentions >>  
*See [College of Education and Health Professions](#).*
- [Teaching English to Speakers of Other Languages Certificate](#) – all mentions >>
- [TeleCampus, UT](#) – all mentions >>
- [Test Information](#) – all mentions >>
- [Test Score Reports](#) – all mentions >>
- [Testing Services](#) – all mentions >>  
*See [Assessment Services](#).*
- [Theatre Arts](#) – all mentions >>
- [Thesis and Dissertation Manual of Style](#) – all mentions >>  
*See [Thesis; Dissertations](#).*
- [Thesis and Dissertation Registration Requirements and Credit](#) – all mentions >>
- [Thesis](#) – all mentions >>
- [Thesis Degree Plans](#) – all mentions >>
  - [Degree Plans & Hours Required](#) – all mentions >>
  - [Final Master's Examination](#) – all mentions >>
- [Thesis Substitute Degree Plan](#) – all mentions >>

- [Degree Plans & Hours Required](#) – all mentions >>
- [Final Master's Examination](#) – all mentions >>
- [Time Limits, Thesis and Dissertation](#) – all mentions >>
  - [Master's](#) – all mentions >>
  - [Doctoral](#) – all mentions >>
- [Title IV Funds](#) – all mentions >>
- [Transfer Credit](#) – all mentions >>
- [Transcripts](#) – all mentions >>
- [Travel Policy, Student](#) – all mentions >>
- [Tuition, Fees, and Charges](#) – all mentions >>
  - [International Student Health Insurance](#) – all mentions >>
  - [Mav Express Card Charge](#) – all mentions >>
  - [Maverick Parking Garage](#) – all mentions >>
  - [Parking Decal Charge](#) – all mentions >>
- [Tuition, Fee, and Charge Exemptions](#) – all mentions >>

## U

- [Unconditional Admission](#) – all mentions >>
- [University of Texas at Arlington](#) – all mentions >>
  - [Accreditation](#) – all mentions >>
  - [Administrative Officers of Academic Units](#) – all mentions >>
  - [Executive Officers](#) – all mentions >>
  - [Government](#) – all mentions >>
  - [Mission Statement](#) – all mentions >>
- [University of Texas System](#) – all mentions >>
  - [Administration](#) – all mentions >>
  - [Board of Regents](#) – all mentions >>
- [Urban Affairs, M.A. Program](#) – all mentions >>
- [Urban and Public Administration, Ph.D. Program](#) – all mentions >>
- [Urban and Public Affairs, School of](#) – all mentions >>
  - [Public Administration](#) – all mentions >>
  - [Urban and Public Affairs](#) – all mentions >>
  - [City and Regional Planning](#) – all mentions >>
- [Urban Journalism Certificate](#) – all mentions >>
- [Urban Nonprofit Management Certificate](#) – all mentions >>
- [UT TeleCampus](#) – all mentions >>
- [UT Arlington/Fort Worth Campus](#) – all mentions >>

## V

- [Vehicle Emissions Inspections](#) – all mentions >>

- [Veterans' Assistance](#) – [all mentions >>](#)

## W

- [Wellness Program, QUEST](#) – [all mentions >>](#)
- [Withdrawal from Classes](#) – [all mentions >>](#)
  - [Withdrawal](#) – [all mentions >>](#)
  - [Disbursement of Refunds](#) – [all mentions >>](#)
- [Work-Study Program](#) – [all mentions >>](#)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



Faculty & Staff Resources

# GRADUATE SCHOOL RESOURCES

*Faculty & Staff Resources* »

*Graduate School Resources*

## GRADUATE SCHOOL RESOURCES

Welcome to the Office of Graduate Studies Faculty and Staff Resources page! On this site you will find tools for advising graduate students in addition to useful information for your graduate program.

As faculty and staff, you have a critical role in helping graduate students meet their academic goals and graduate. We're here to help you. Click on the Graduate Advisor Resources Link on the right to find specific information on MyMav Training. Also, take a look at our [Graduate Student Calendar](#) that informs you about upcoming graduate student workshops for your students.

Our website also has information on proposing new graduate programs or certificates as well as academic program review.

Can't find what you are looking for? Send us an email. We'll be glad to help.

[graduate.studies@uta.edu](mailto:graduate.studies@uta.edu)

This is the faculty/staff resources website for Graduate School. Click the link below to visit their main website.

## [GRADUATE SCHOOL](#)

### RELATED LINKS

Please visit these links for specific questions about:

- [Principles of Community](#)
- [Provost Office](#)
- [Faculty & Staff Services](#)
- [UT Benefits](#)
- [Parking Issues](#)
- [HR concerns](#)
- [Grievance procedures](#)
- [Ethics hotline](#)
- [Campus carry](#)
- [Events calendar](#)

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

Give

Contact Us People  
Directory

Campus  
Maps

The University of Texas at Arlington  
701 S. Nedderman Drive  
Arlington, TX 76019  
817-272-2011

Careers Help

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington





APPLY

## CURRENT STUDENTS

# CURRENT STUDENTS

Welcome to the Graduate School website! We offer many opportunities to enrich your graduate education. From the beginning graduate student to the almost-finished professional/scholar, we provide workshops and tutorials that will help you stand out from the crowd. Interested? Great! Let's get started!

Click on the links to the right in order to find the programs that will benefit you the most.

New to campus? Take a look at the [Next Steps for Domestic Students](#) and/or [Next Steps for International Students](#) to see what needs to be done before the first day of class. If you have been hired as a GTA or GRA take a look at some [frequently asked questions](#) to help you as a new employee at UT Arlington.

Take a look at the [steps required to earn a Master's or Doctoral degree](#) to keep yourself on track!

Got a question for the Graduate School? Have an idea for a workshop? Let us know!

[graduate.studies@uta.edu](mailto:graduate.studies@uta.edu)

## UTA GRADUATE SCHOOL

348 University Administration Building  
701 S. Nedderman Drive  
Box 19185  
Arlington, TX 76019 USA

Phone: [817-272-5164](tel:817-272-5164)



## FOLLOW US

---



## IMPORTANT LINKS

---

[CONTACT US](#) □

[FACULTY & STAFF RESOURCES](#)



[GRADUATE ADVISORS](#) □

[WORKSHOPS & EVENTS](#) □

[UNIVERSITY CATALOG](#) □

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

Contact

Us

People

Directory

Campus

Maps

Careers

IT Help

UTA

Mobile

App

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington







APPLY

## INTERNATIONAL STUDENTS

# INTERNATIONAL STUDENTS

## PROSPECTIVE STUDENTS

Are you thinking about attending UT Arlington for your graduate degree? Great! International students are an important part of our graduate student community. Follow the links on the right to find important information as well as links to the colleges and schools at UT Arlington in order to find out the specific requirements for acceptance. Or if you're ready to apply, click the admissions button now.

- [International Student Admissions](#)

## ADMITTED STUDENTS

Already accepted? Even better! The Graduate School looks forward to assisting you throughout your graduate career. Make sure you visit the Office of International Education's page. They describe in detail all the requirements that international students must meet before and after arrival.

There are two new student orientations once you arrive on campus. You MUST attend the New International Student Orientation, so make sure to sign up for an orientation session. You are also welcome to attend the Graduate Student Orientation. Click on the following links for more information about each event.

- [New International Student Orientation](#)
- [New Graduate Student Orientation](#)

## SCHOOL

---

348 University Administration Building  
701 S. Nedderman Drive  
Box 19185  
Arlington, TX 76019 USA

Phone: [817-272-5164](tel:817-272-5164)

## FOLLOW US

---



## IMPORTANT LINKS

---

[CONTACT US](#)

[FACULTY & STAFF RESOURCES](#)



[GRADUATE ADVISORS](#)

[WORKSHOPS & EVENTS](#)

[UNIVERSITY CATALOG](#)

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

[Contact](#)

[Us](#)

[People](#)

[Directory](#)

[Campus](#)

[Maps](#)

[Careers](#)

[IT Help](#)

[UTA](#)

[Mobile](#)

[App](#)

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington







APPLY

## ABOUT US

The Graduate School at The University of Texas at Arlington develops a student's potential for high-impact research, scholarship, creativity, innovation, entrepreneurship and professional advancement through guided study and practice in more than 125 doctoral and master's degree tracks and 49 graduate certificate programs.

The Graduate School is committed to inclusion, accessibility and equity. We encourage the graduate community to embrace and celebrate our similarities and differences. Our graduate programs prepare citizens and leaders to meet the challenges posed by our modern global environment.

The Graduate School:

- advances the academic and professional goals of all graduate programs
- promotes university-wide policies supporting academic excellence and rigor
- connects students to activities, resources and skills supporting academic success and enabling transitions to successful careers in academics, business and industry
- advocates for the interests of graduate education and the interests of graduate students in departmental, university, state, and national arenas

Follow our social media @utagradschool for announcements of interest to graduate students, including new funding opportunities, upcoming events, deadline reminders and more.

## NEED ASSISTANCE OR INFORMATION? FACULTY & STAFF



Use our [Faculty/Staff resources page](#) to obtain information about university policies and processes. [Contact us](#) if you have any questions related to these or other matters related to graduate education at UT Arlington.

## STUDENTS

The Graduate School at UT Arlington is not directly involved in admissions. This work is done by the Admissions Office and your graduate program. Do not send admission materials to the Graduate School. Follow directions on the [Graduate Admissions website](#).

- Use our [Admission page](#) to navigate the admission process or contact the [Office of Admissions directly](#) with questions or concerns
- Contact the [graduate advisor](#) of your program if you have questions about your admission status

Contact the Graduate School if you have questions about:

- Academic and professional support: See our menu of [programs and workshops](#) that enrich your experience and opportunities at UT Arlington
- General, University-wide policies and procedures such as those described in the University Catalog under [University Requirements and Policies](#). These are rules and requirements that supplement your program's specific requirements

Contact your department's [graduate advisor](#) with questions about:

- admission decision
- your degree plan
- enrollment questions or concerns
- degree requirements
- whether you meet graduation requirements
- assistantship opportunities

Contact Records and Registration ([gradteam@exchange.uta.edu](mailto:gradteam@exchange.uta.edu)) with questions concerning:

- whether you have met all degree requirements and are eligible to graduate
- whether your degree has been awarded
- your diploma
- official transcripts

- submitting reports on outcomes of required defenses or examinations, e.g., Master's Examination Final Report, Comprehensive Examination Report, Dissertation Defense Report

[SEE THE REPORTS](#)

## UTA GRADUATE SCHOOL

---

348 University Administration Building  
701 S. Nedderman Drive  
Box 19185  
Arlington, TX 76019 USA

Phone: [817-272-5164](tel:817-272-5164)

## FOLLOW US

---



## IMPORTANT LINKS

[CONTACT US](#) □

[FACULTY & STAFF RESOURCES](#)  
□

[GRADUATE ADVISORS](#) □

[WORKSHOPS & EVENTS](#) □

[UNIVERSITY CATALOG](#) □

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

[Contact  
Us](#)

[People  
Directory](#)

[Campus](#)

[Maps](#)

[Careers](#)

[IT Help](#)

[UTA](#)

[Mobile](#)

[App](#)

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington





[APPLY](#)

# IT ALL STARTS HERE

[APPLY FOR ADMISSION](#)

[REQUEST INFO](#)

[MYMAV](#)

[READ MORE ABOUT THE MILESTONE](#)

## **A UNIVERSITY OF EXCELLENCE**

### **TIER ONE**

**4TH UNIVERSITY IN THE STATE TO  
RECEIVE THE COVETED TEXAS  
TIER ONE DESIGNATION**

(Texas Higher Education Coordinating Board)

**#1**

**IN THE NATION FOR VETERANS  
AND THEIR FAMILIES**

(Military Times, 2021)

**R-1**

**DOCTORAL UNIVERSITY**

(Very High Research Activity designation by the Carnegie  
Classification of Institutions of Higher Education)

**#1**

**IN TEXAS FOR DEGREES AWARDED  
TO AFRICAN AMERICAN STUDENTS**

(Diverse: Issues in Higher Education, 2021)

**AANAPSI**

**ASIAN AMERICAN NATIVE  
AMERICAN PACIFIC ISLANDER-  
SERVING INSTITUTION**

(Designated in 2021 by the U.S. Department of Education)

**HSI**

**HISPANIC-SERVING INSTITUTION**

(Designation by the U.S. Department of Education)

**OUR RANKINGS**

**YOUR SUCCESS STORY IS NEXT**

Over 200,000 alumni have written their stories of achievement. Yours could be next.







# WHAT'S HAPPENING AT UTA?

## MAVERICK STAMPEDE

Maverick Stampede is filled with exciting events and activities to kick off a new semester at UTA.

[MAVERICK STAMPEDE EVENTS](#)

## ACTIVITY FAIR

Get involved to make the most out of your time on campus. Join us on Wednesday, Feb. 9, where UTA's student organizations showcase their opportunities for involvement.

[MORE EVENT DETAILS](#)

## GET IMMERSED IN THE MAVERICK EXPERIENCE

Maverick Experience is a full-day event that gives future freshmen and transfer students a close-up look at what UTA has to offer. Join us in person Monday, March 14, 2022, for a campus tour and sessions on admission, financial aid and scholarships, academic colleges and schools, and more.

[LEARN MORE AND REGISTER](#)

# LATEST NEWS

8 February —

1 February —

7 February —

2 February —

31 January —

1 February —

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

[Contact](#)

[Us](#)

[People](#)

[Directory](#)

[Campus](#)

[Maps](#)

[Careers](#)

[IT Help](#)

[UTA](#)

[Mobile](#)

[App](#)

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington







**APPLY**

# APPLY

Applying for admission is easy, and we're here to work with you every step of the way.

## I'M APPLYING AS A...



### FRESHMEN

First time, UTA degree-seeking students who have or will soon receive a High School Diploma or GED.

**FRESHMEN REQUIREMENTS & INSTRUCTIONS**

### TRANSFER

Students who have attended another college or university who want to graduate with a UTA degree.

**TRANSFER REQUIREMENTS & INSTRUCTIONS**

## GRADUATE

Pursue a master's, doctoral, or post-graduate certificate program with us.

[GRADUATE REQUIREMENTS AND INSTRUCTIONS](#)

## RETURNING

Continuing students who have previously been officially enrolled at UTA.

[RETURNING INSTRUCTIONS](#)

## ALTERNATE APPLICATIONS

Undergraduate students who wish to enroll at UTA on a temporary basis or who wish to pursue a second bachelor's degree.

[ALTERNATE APPLICATIONS INSTRUCTIONS](#)



**WORLD CLASS UNIVERSITY**

# **INTERNATIONAL ADMISSIONS**

As the 3rd most diverse university in the country, UTA is an international leader in education. Attracting the best students to not only innovate in their field but become global-leaders. Take the first step and apply to be part of the UTA Maverick Family!

**INTERNATIONAL FRESHMEN ADMISSIONS** [□](#)

**INTERNATIONAL TRANSFER ADMISSIONS** [□](#)

**INTERNATIONAL GRADUATE ADMISSIONS** [□](#)

## **CONNECT WITH ADMISSIONS**

**FACEBOOK** [□](#)

**INSTAGRAM** [□](#)

**TIKTOK**

**TWITTER**

**YOUTUBE**

**ADMISSIONS PROVISIONS**

**REQUEST INFO**

## ADMISSIONS FORMS

Submit  
undergraduate  
and graduate  
admissions  
documents.

## CONTACT US

Need an  
admissions  
counselor?  
Contact the  
counselor for  
your region.

## FREQUENTLY ASKED QUESTIONS

The most  
common  
questions during  
the admissions  
process.

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

Give

Contact

Us

People

Directory

Campus

Maps

Careers

IT Help

UTA

Mobile

App

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington







APPLY

## GUIDE TO GRADUATE RESOURCES AND CONTACT INFORMATION

# GUIDE TO GRADUATE RESOURCES AND CONTACT INFORMATION

The Graduate School offers/assists with:

- Academic and professional development [resources](#), [workshops and programs](#) for graduate students
- [Grants/fellowships](#) administered by the Graduate School
- All inquiries regarding Graduate School policies and procedures

Please contact the Graduate School by phone or e-mail for information about matters in any of the above areas.

Graduate School phone: 817-272-5164

E-mail: [graduate.studies@uta.edu](mailto:graduate.studies@uta.edu)

Hours: Monday-Friday 8:00AM-5:00 PM (by appointment)

## CAMPUS RESOURCES FOR FREQUENTLY ASKED QUESTIONS

Please see below for contacts to obtain assistance with other matters pertaining to [prospective](#), [current](#), [international](#), and [former](#) graduate students.

### PROSPECTIVE GRADUATE STUDENTS

Contact the [Office of Admissions](#) for questions about/assistance with:

- Applying for admission to a graduate program at UT Arlington
- The status of an application for admission to a graduate program at UT Arlington
- The initial attendance I-20 for newly admitted international students

Graduate Admissions Phone: 817-272-2090

Graduate Admissions E-mail: [grad.recruit@uta.edu](mailto:grad.recruit@uta.edu)

Contact your intended academic department for questions about/assistance with:

- A specific academic program, including admission requirements and curriculum
- Obtaining a Graduate Assistantship (GRA/GTA positions)

Department contact information is available on the [UT Arlington website](#).

## CURRENT GRADUATE STUDENTS

Contact the [Office of Records](#) for questions about/assistance with:

- Enrollment verification
- Official UT Arlington transcripts
- [Applying for graduation](#) (gradteam)
- Change of graduate program
- Record change (name, social security number, date of birth, etc.)
- Documents required to complete graduation requirements (examination reports, etc.)
- Changing a conditional pass on an examination or defense report to unconditional pass

Office of Records / Gradteam Phone: 817-272-3372

Office of Records E-mail: [records@uta.edu](mailto:records@uta.edu)

Gradteam E-mail: [gradteam@uta.edu](mailto:gradteam@uta.edu)

Contact your graduate academic advisor/graduate academic department for questions about/assistance with:

- Academic advisement
- Course selection and registration

- Enrollment holds
- Problems with low GPA /academic standing
- Graduate Assistantships (GRA/GTA positions)

A list of graduate academic advisors is available [here](#). Department contact information is available on the [UT Arlington website](#).

For questions about commencement, please visit [uta.edu/commencement](http://uta.edu/commencement).

## INTERNATIONAL GRADUATE STUDENTS

Contact the [Office of International Education](#) for questions about/assistance with:

- Your immigration status
- Immigration regulations
- Employment authorization

Office of International Education phone: (817) 272-2355

Office of International Education e-mail: [international@uta.edu](mailto:international@uta.edu)

Contact the [Office of Admissions](#) for questions about/assistance with:

- Applying for admission to a graduate program at UT Arlington
- Your application for admission to a graduate program at UT Arlington
- Your initial attendance I-20 as a newly admitted international student

Graduate Admissions Phone: 817-272-2090

Graduate Admissions E-mail: [grad.recruit@uta.edu](mailto:grad.recruit@uta.edu)

## FORMER GRADUATE STUDENTS

Contact the [Office of Records](#) for questions about:

- Official UT Arlington transcripts
- Degree/diploma issuance (gradteam)

Office of Records Phone: 817-272-3372

Office of Records E-mail: [records@uta.edu](mailto:records@uta.edu)



Gradteam E-mail: [gradteam@uta.edu](mailto:gradteam@uta.edu)

Contact the [Office of Admissions](#) for questions about/assistance with:

- Applying for admission to a new graduate program at UT Arlington
- The status of your application for admission to a new graduate program at UT Arlington

Graduate Admissions Phone: 817-272-2090

Graduate Admissions E-mail: [grad.recruit@uta.edu](mailto:grad.recruit@uta.edu)

## UTA GRADUATE SCHOOL

---

348 University Administration Building  
701 S. Nedderman Drive  
Box 19185  
Arlington, TX 76019 USA

Phone: [817-272-5164](tel:817-272-5164)

## FOLLOW US

---



## IMPORTANT LINKS

---

[CONTACT US](#) □

[FACULTY & STAFF RESOURCES](#)



[GRADUATE ADVISORS](#) □

[WORKSHOPS & EVENTS](#)

[UNIVERSITY CATALOG](#)

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

[Contact  
Us](#)

[People  
Directory](#)

[Campus  
Maps](#)

[Careers](#)

[IT Help](#)

[UTA  
Mobile  
App](#)

The University of Texas at Arlington  
701 S. Nedderman Drive  
Arlington, TX 76019  
817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington





APPLY

## RANKINGS AND RECOGNITION

Excellence and achievement abound at The University of Texas at Arlington.

# THE UNIVERSITY OF TEXAS AT ARLINGTON

## BEST GRADUATE PROGRAMS

U.S. News & World Report's 2022 "Best Graduate Schools" rankings include 16 graduate programs at UTA.

## #3 FOR ETHNIC DIVERSITY

UTA has the third-highest undergraduate diversity index, according to U.S. News & World Report's 2022 rankings.

## TOP PERFORMERS ON SOCIAL MOBILITY

U.S. News & World Report ranked UTA No. 26 on its 2022 list of the "Top Performers on Social Mobility" among national universities.

## USN&WR; BEST COLLEGES

U.S. News & World Report's 2022 "Best Colleges" list includes UT Arlington at No. 288.

## NO. 1 NATIONALLY: BEST FOR VETERANS

UTA ranks No. 1 nationally on Military Times' 2021 "Best for Vets: Colleges" list.

## HIGHEST PAID GRADUATES

A 2021 University of Texas System survey on post-graduation earnings for baccalaureate graduates working in Texas found that UTA graduates have the highest first-year median wage of any non-medical UT System institution.

## AWARDED R-1: DOCTORAL UNIVERSITIES VERY HIGH RESEARCH ACTIVITY

UTA was awarded R-1: Doctoral Universities Very High Research Activity designation by the Carnegie Classification of Institutions of Higher Education, the definitive list for the top doctoral research universities in the United States. This puts the University in an elite group of 131 institutions, including Harvard, MIT, and Johns Hopkins.

## TOP FOR NATIVE AMERICAN STUDENTS 5 YEARS IN A ROW

UTA was included on Winds of Change magazine's unranked list of the "Top 200 Universities for Indigenous Students" for 2021.

## TOP FOR MASTER'S DEGREES

Intelligent.com ranked UTA's master's degree programs No. 7 in the U.S. for 2021.

## NO. 5 FOR TRANSFERS

U.S. News & World Report lists UTA as No. 5 in the nation for universities that enroll the most transfer students.

## AANAPSI DESIGNATION

UTA was designated an Asian American Native American Pacific Islander-Serving Institution for the first time in 2021.

## 18 NATIONAL ACADEMY OF INVENTORS FELLOWS

UTA has 18 National Academy of Inventors fellows, the most of any institution in Texas and tied for the 5th most nationally.

## **TOPS FOR HISPANIC STUDENTS**

Hispanic Outlook on Education magazine ranked UTA No. 7 in total master's degrees granted, No. 21 in total bachelor's degrees, and No. 29 in total enrollment for 2021.

## **NO. 1 IN TEXAS FOR DEGREES AWARDED TO AFRICAN AMERICAN STUDENTS**

According to the 2021 edition of *Diverse: Issues in Higher Education* magazine, UTA is No. 1 in Texas for awarding bachelor's and master's degrees to African American students. Nationally, the University is No. 12 for bachelor's degrees awarded to African American students and No. 13 for master's degrees. In addition, UTA is No. 15 for bachelor's degrees awarded to Hispanic students and No. 11 for master's degrees in the U.S.; No. 1 in Texas and No. 15 nationally for master's degrees awarded to all minority students; and No. 13 nationally for bachelor's degrees awarded to all minority students.

## **BEST MAKER SCHOOLS IN HIGHER EDUCATION**

In 2021, Newsweek and the publisher of *Make* magazine included UTA on its non-ranked list of the "Best Maker Schools in Higher Education." The list features schools that are supported by educators committed to collaborative problem-solving; have well-developed makerspaces, labs, and studios; and support diverse, interactive communities that engage in knowledge and skill sharing.

## **PHI THETA KAPPA'S 2021 TRANSFER HONOR ROLL**

UTA was recognized among 150 colleges and universities for excellence in the development and support of dynamic and innovative transfer pathways for community college transfer students on Phi Theta Kappa's 2021 Transfer Honor Roll.

## BEST BANG FOR YOUR BUCK

Washington Monthly ranked UT Arlington the top national university in the Metroplex and the No. 9 Best Bang for Your Buck in the South for 2021.

## BEST UNIVERSITIES IN U.S.

UTA ranked among the top 100 universities worldwide in two areas of the 2021 Times Higher Education Impact Rankings, which assess a university's progress toward the United Nations' Sustainable Development Goals. The two areas are Sustainable Cities and Communities, which highlights efforts to make cities and human settlements inclusive, safe, resilient and sustainable, and Partnerships for the Goals, which encompasses efforts to strengthen the means of implementation and revitalize the global partnership for sustainable development.

## NO. 1 IN TEXAS FOR SERVING FIRST-GENERATION, LOW-INCOME STUDENTS

In 2020, the educational nonprofit ScholarShot ranked UTA tied for first in Texas for serving first-generation, low-income students on its Texas Public University Report Card.

## UTA PATENTS CONTRIBUTE TO SYSTEM RANKING

UTA was granted 23 patents in 2020, contributing to the UT System's overall No. 4 ranking in the list of Top 100 Worldwide Universities Granted U.S. Utility Patents in 2020. The list was compiled by the National Academy of Inventors and the Intellectual Property Owners Association.

## FASTEST GROWING DOCTORAL PUBLIC



## **INSTITUTIONS IN THE U.S.**

The Chronicle of Higher Education's Almanac ranked UTA as the seventh fastest-growing doctoral public institution in the country.

## **CARNEGIE COMMUNITY ENGAGED CAMPUS**

UTA was designated a 2010-2020 Carnegie Community Engaged Campus by the Carnegie Foundation for the Advancement of Teaching for service to the community and the public school system.

## **TOP COLLEGE FOR HIGH-QUALITY EDUCATION**

A report from the Brookings Institution ranks the University of Texas at Arlington among the nation's top public universities in providing a high-quality college education to students from all income levels.

## **TOP 15% FOR VETERAN FRIENDLINESS**

College Factual ranked UTA in the top 15% of U.S. colleges and universities for veteran friendliness. The ranking is based on educational outcomes to veterans, active-duty military students, and their families.

## **COLLEGE OF ARCHITECTURE, PLANNING AND PUBLIC AFFAIRS**

## **BEST PUBLIC AFFAIRS GRADUATE PROGRAM**

U.S. News & World Report ranks CAPPA's public affairs graduate program No. 95 in its 2022 "Best Graduate Schools" list.

## TOP VALUE

Great Value Colleges ranked UTA's accelerated online public administration master's program No. 20 in the nation overall and No. 1 for lowest tuition among the top 50.

## MASTER PROGRAM NO. 3 IN U.S.

Intelligent.com ranked the Master of Public Administration program No. 3 in the country for 2021.

## NO. 7 IN ARCHITECTURE DEGREES FOR HISPANIC STUDENTS

UTA is ranked No. 7 in architecture and related service degrees for Hispanic students, according to the 2021 list from The Hispanic Outlook on Education.

## NO. 7 ON GRAD REPORT'S

UTA was ranked No. 7 on Grad Report's list of the top 25 colleges that offer a master's degree in architecture. The ranking is based on the median salary of the program's graduates one year after college.

## ONLINE MASTER OF PUBLIC ADMINISTRATION NO. 15 IN NATION

Online College Plan.com ranked UTA's online Master of Public Administration No. 15 in the nation for 2020.

## **NO. 13 FOR MOST AFFORDABLE**

UTA was ranked No. 13 on OnlineUOs 2019 list of the Most Affordable Online Colleges for MPA Programs.

## **MPA PROGRAMS RANKED 15TH**

The Master of Public Administration was ranked 15th in ValueColleges.comOs 2019 list of the best value online MPA programs.

## **TOP 15 BEST ONLINE MASTER OF PUBLIC ADMINISTRATION DEGREES FOR 2020**

UTA is ranked No. 12 among the Os15 Best Online Master of Public AdministrationÓ degrees for 2020 by Great Business Schools.org.

## **COLLEGE OF BUSINESS**

### **BEST GRADUATE SCHOOL**

The College of BusinessOs Part-Time MBA program is ranked No. 66 on U.S. News & World ReportOs 2022 OsBest Graduate SchoolsÓ list.

### **BUSINESS REACCREDITATION**

In 2021, the College of Business received reaccreditation from the Association to Advance Collegiate Schools of Business.

## **HUMAN RESOURCE MANAGEMENT DEGREE RECOGNIZED**

Intelligent.com ranked UTA's master's program in human resource management No. 9 in the country for 2021.

## **ACCOUNTING AMONG BEST IN NATION**

College Rank placed the UTA bachelor's program in accounting No. 27 on its 2021 rankings of the best in the nation.

## **UNDERGRADUATE BUSINESS PROGRAMS**

U.S. News & World Report ranked UTA's undergraduate business programs No. 132 in the nation in its 2021 rankings.

## **MBA PROGRAMS NO. 1 IN TEXAS**

CEO Magazine named the College of Business's Executive Master of Business program No. 21 among Global MBA programs, No. 16 in the United States, and No. 1 in Texas. Its MBA program was named to the Tier 1 North American rankings.

## **BEST MASTER'S IN THE NATION**

Ranked in Eduniversal's 2019 Best Master's, the college's MS in Business Analytics is No. 20, the MS in Economic Data Analytics is No. 39, the MS in Information Systems and MS in Human Resource Management are both No. 40, the MS in Taxation is No. 43, the MS in Marketing Research is No. 45, the MS in Real Estate is No. 48, and the EMBA and MS in Accounting are both No. 50.

## **NO. 5 IN THE NATION FOR HUMAN**

## RESOURCE MANAGEMENT

CollegeChoice ranked the Master of Science in Human Resource Management degree program No. 5 in the nation for 2019. The MBA in Human Resource Management degree program ranked No. 6.

## FINANCE PROGRAM NO. 2 IN TEXAS

TFE Times ranked the College of Business' master's program in finance No. 2 in Texas and No. 40 in the nation for 2019.

## COLLEGE OF EDUCATION

### BEST GRADUATE SCHOOLS

U.S. News & World Report ranks the College of Education No. 154 in its 2022 "Best Graduate Schools" list.

### NO. 12 IN U.S. FOR 2021

College Rank placed UTA No. 12 on its list of the best master's programs in curriculum and instruction for 2021.

### EDUCATION ACCREDITATION

The College of Education is only the second institution in Texas to complete national accreditation through the Association for Advancing Quality in Educator Preparation while also retaining its NCATE/CAEP accreditation.

### MASTER'S DEGREE PROGRAMS AMONG TOP

## IN THE U.S.

Intelligent.com ranked UTA's Master's in Education degree programs No. 2 in the U.S. It also ranked the online master's degree program in curriculum and instruction, No. 5 in the nation for 2021.

## ONLINE PROGRAM NO. 1 IN THE NATION

The Online Master's program in Curriculum and Instruction was ranked No. 1 in the nation by College Choice.

## TOP TEACHER PREP PROGRAM

The College of Education was named one of the nation's top teacher prep programs in the first edition of Start Here to Become a Teacher, a new book from the National Council on Teacher Quality. UTA is in the 97th percentile, making it one of the top programs in Texas. The council also gave UTA an A+ grade.

## BEST ONLINE PROGRAMS FOR 2021

U.S. News & World Report's 2021 list of Best Online Programs ranked the College of Education's online master's program as No. 16 in the country for veterans and its online master's program in curriculum and instruction as No. 19. The college's overall online master's programs are No. 52 nationally.

## ONLINE GRADUATE PROGRAM NO. 46 IN THE U.S.

The College of Education's online graduate education program ranked No. 46 nationally in U.S. News & World Report's 2019 rankings.

# COLLEGE OF ENGINEERING

## BEST GRADUATE SCHOOLS IN U.S.

U.S. News & World Report's 2022 "Best Graduate Schools" list ranks the College of Engineering No. 84 in the nation. The graduate program in aerospace/aeronautical/astronautical engineering is ranked No. 44, biomedical engineering/bioengineering No. 89, civil engineering No. 95, computer engineering No. 83, computer science No. 91, electrical/electronic/communications engineering No. 85, industrial/manufacturing/systems engineering No. 50, mechanical engineering No. 83, and materials engineering No. 83.

## UNDERGRADUATE ENGINEERING PROGRAMS

U.S. News & World Report ranked UTA No. 114 among undergraduate engineering programs in its 2022 rankings. Its computer science program ranked No. 110.

## CONSTRUCTION MANAGEMENT DEGREE RANKED

Intelligent.com ranked UTA's master's program in construction management No. 31 in its 2021 assessment, calling it the "best interdisciplinary program."

## TOP CIVIL ENGINEERING DEGREE

For 2021, Intelligent.com ranked UTA's master program in civil engineering No. 33 in the country, calling it the "best for career development."

## ONLINE MASTER'S IN CIVIL ENGINEERING NO. 9

The SR Education group ranked UTA No. 9 on its list of "Best Online Colleges Offering a Master's in Civil Engineering" for 2019.

## **HIGHEST RANKING OF ANY NORTH TEXAS UNIVERSITY**

OnlineMasters.com ranked UTA No. 28 on its list of the Best Online Master in Electrical Engineering Programs for 2019. It was one of only two Texas universities in the top 40. The site also ranked UTA's Online Master in Industrial Engineering No. 25, the highest of any North Texas university.

## **COLLEGE OF LIBERAL ARTS**

### **BEST GRADUATE SCHOOLS IN THE NATION**

U.S. News & World Report's 2022 "Best Graduate Schools" list ranks the English doctoral program No. 131 and the history doctoral program No. 134.

### **BEST ONLINE CRIMINOLOGY AND CRIMINAL JUSTICE DEGREE**

UTA's online degree in criminology and criminal justice was ranked among the best in the country for 2020 by OnlineSchoolsReport.com.

### **VISUAL COMMUNICATION DESIGN PROGRAM**

The Department of Art and Art History's Visual Communication Design program was ranked No. 44 in the country by Animation Career Review, an online resource for aspiring animators, game designers, graphic designers and digital artists.



# COLLEGE OF NURSING AND HEALTH INNOVATION

## GRADUATE PROGRAM AMONG TOP 100

U.S. News & World Report's 2022 "Best Graduate Schools" list ranks the College of Nursing and Health Innovation's master's program No. 60 and the Doctor of Nursing Practice program No. 100 in the nation.

## NO.1 ON BEST NURSING COLLEGES AND UNIVERSITIES LIST

UTA is ranked No. 1 on Study.com's Best Nursing Colleges and Universities list for 2021. It also ranked its public health bachelor's degree No. 6 in the country.

## MSN PROGRAM NO. 22 IN U.S.

For 2021, Intelligent.com ranked UTA's MSN program No. 22 in the country, calling it the "best for nursing education."

## BEST ONLINE NURSING SCHOOL MASTER'S PROGRAMS

The College of Nursing and Health Innovation was included on The Princeton Review's list of the Best Online Nursing School Master's Programs for 2021.

## **TOP 100 IN U.S. FOR ONLINE GRADUATE NURSING PROGRAM**

The College of Nursing and Health Innovation is ranked No. 92 out of 194 institutions on U.S. News & World Report's 2021 list of Best Online Programs.

## **MOST AFFORDABLE ONLINE MSN PROGRAMS**

Nursing School Hub ranked CONHI No. 16 on its list of Top 25 Most Affordable Online Master's in Nursing Educator Programs for 2021.

## **100 BEST NURSING SCHOOLS IN THE NATION**

Nursing Schools Almanac ranked the College of Nursing and Health Innovation in four different categories in its 2021 rankings: No. 6 overall in the Southwest region, No. 6 overall in Texas, No. 46 among public nursing schools, and No. 89 nursing school in the United States.

## **BEST ONLINE MSN DEGREE PROGRAM**

Learn.org ranked UTA No. 18 on its list of the Best Online MSN Degree Programs for 2020.

## **BEST IN THE NATION**

The online Bachelor of Science in Nursing degree program was ranked as the best in the nation for 2020 by College Rank.net.

## **2ND IN TEXAS FOR ONLINE MASTER'S PROGRAM**

The online Master of Science in nursing degree program is ranked No. 7 nationally and second in Texas among nursing schools with hybrid or fully online MSN programs, according to Best Health Care Degrees.

## **NO. 3 FOR VETERAN FRIENDLINESS**

The College of Nursing and Health Innovation is ranked No. 3 in the nation for veteran friendliness by College Factual. The 2019 rankings look for colleges that produce quality outcomes in nursing and offer support and resources to help veterans and active-duty military students thrive.

## **NO. 1 IN TEXAS FOR NON-TRADITIONAL STUDENTS**

The College of Nursing and Health Innovation is No. 1 in Texas and No. 10 in the country for non-traditional students, according to College Factual's 2019 rankings.

## **CENTER OF EXCELLENCE IN NURSING EDUCATION**

The College of Nursing and Health Innovation was designated a 2019 Center of Excellence in Nursing Education by the National League for Nursing.

## **BSN DEGREE RANKED NO. 6**

The online Bachelor of Science in Nursing degree is ranked No. 6 on ValueColleges.com's Top 50 Best Value Online RN to BSN list.

## **ONLINE NURSING PROGRAM RANKED NO. 7**

The College of Nursing and Health Innovation was ranked No. 7 on the Top 20 Online Nursing Degree Programs list by OnlineSchoolsCenter.com.

## **ONLINE BACHELOR'S BEST IN THE U.S.**

UTA's online accelerated Bachelor of Science in Nursing degree program was ranked as the best in the U.S. by Nursing Process.org.

## **COLLEGE OF SCIENCE**

### **BEST GRADUATE SCHOOLS IN THE NATION**

U.S. News & World Report's 2021 "Best Graduate Schools" list ranks the College of Science's graduate program in biological sciences No. 190, chemistry No. 145, mathematics No. 136, physics No. 119, psychology No. 190, and earth science No. 111 in the nation.

## **SCHOOL OF SOCIAL WORK**

### **NO. 1 FAST-TRACK ONLINE SOCIAL WORK DEGREE**

UT Arlington was ranked No. 1 among colleges with a fast-track online social work degree by Best Values Schools (2020).

## **GRADUATE PROGRAM NO. 51 IN THE NATION**

U.S. News & World Report ranked the graduate social work program No. 51 in the nation on its 2021 "Best Graduate Schools" list.

## **NO. 1 IN TEXAS FOR VETERAN FRIENDLINESS**

The School of Social Work is ranked No. 1 in Texas and No. 3 in the nation for veteran friendliness by College Factual. The rankings look for schools and colleges that produce quality outcomes in social work and offer support and resources to help veterans and active-duty military students thrive.

## **ONLINE MASTER'S NO. 22 IN THE COUNTRY**

UTA's online Master of Social Work degree program was ranked No. 22 in the country for 2020 by OnlineSchoolsReport.com.

## **NO. 39 IN THE U.S. FOR MASTER'S PROGRAM**

Intelligent.com ranked the Master of Social Work degree program No. 39 in the U.S. for 2020.

## **MOST AFFORDABLE MASTER'S PROGRAM IN TEXAS**

The MSW program offers the best value in Texas according to HumanServicesEdu.org's list of the Most Affordable CSWE-Accredited Master's in Social Work Programs for 2019-20.

## **NO. 2 FOR BEST ONLINE MASTER'S**

Best College Reviews ranked UTA No. 2 on its list of the Best Master's in Social Work Online for 2019.

# ABOUT US

**OVERVIEW** [□](#)

**FAST FACTS** [□](#)

**RANKINGS AND  
RECOGNITION** [□](#)

**ADMINISTRATION** [□](#)

**OUR ALUMNI** [□](#)

**ARLINGTON AND THE  
REGION** [□](#)

**CAREERS AT UTA** [□](#)

**FACILITIES** [□](#)

**TRADITIONS** [□](#)

**APPLY FOR ADMISSION**

UNIVERSITY OF TEXAS  ARLINGTON

[Apply for Admission](#)

[Request Info](#)

[Visit Campus](#)

[Give](#)

[Contact](#)

[Us](#)

[People](#)

[Directory](#)

[Campus](#)

[Maps](#)

[Careers](#)

[IT Help](#)

UTA

Mobile

App

The University of Texas at Arlington

701 S. Nedderman Drive

Arlington, TX 76019

817-272-2011

[Emergency Preparedness](#) | [Mental Health Resources](#) | [Nondiscrimination and Title IX](#) | [Privacy and Legal Notice](#) | [Accessibility](#) | [Site Policies](#) | [Report Sexual Misconduct](#) | [Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Texas Veterans Portal](#) | [Statewide Search](#) | [Report Fraud](#) | [CARES Act Federal Disclosures](#)

© 2022 The University of Texas at Arlington







# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Master's Degree Requirements](#)

[Dual Degree Requirements](#)

[Doctoral Degree Requirements](#)

[Fields of Study](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Degree Requirements

- [School of Architecture](#)
- [College of Business](#)
- [College of Education and Health Professions](#)
- [College of Engineering](#)
- [College of Liberal Arts](#)
- [College of Nursing](#)
- [College of Science](#)
- [School of Social Work](#)
- [School of Urban and Public Affairs](#)

### School of Architecture

#### Architecture

**Master's Degrees**  
[Architecture, M.ARCH.](#)

#### Landscape Architecture

**Master's Degrees**  
[Landscape Architecture, M.L.A.](#)

### College of Business

#### Accounting

**Master's Degrees**  
[Accounting, M.S.](#)  
[Professional Accounting, M.P.A.](#)  
[Taxation, M.S.](#)

**Doctoral Degrees**  
[Accounting, Ph.D.](#)

**Certificates**  
[Tax Certificate](#)

## Business Administration

### Master's Degrees

[Business Administration, M.B.A. \(Flexible Format\)](#)  
[Business Administration, M.B.A. \(Professional Cohort\)](#)  
[Business Administration, M.B.A. Non Thesis Fast Track](#)  
[Business Administration, M.B.A. Thesis Fast Track](#)  
[Executive M.B.A.](#)  
[Online Business Administration \(Online M.B.A.\)](#)

### Doctoral Degrees

[Business Administration, Ph.D.](#)

### Certificates

[Entrepreneur Certificate](#)  
[Graduate Advanced Studies Business Certificate](#)

## Economics

### Master's Degrees

[Economics Data Analytics, M.S.](#)

## Finance and Real Estate

### Master's Degrees

[Quantitative Finance, M.S.](#)  
[Real Estate, M.S.](#)

### Doctoral Degrees

[Finance \(Business Administration\), Ph.D.](#)

### Certificates

[Real Estate Development Certificate](#)

## Health Care Administration

### Master's Degrees

[Healthcare Administration, M.S.](#)

### Certificates

[Health Care Administration Certificate](#)

## Information Systems & Operations Management

### Master's Degrees

[Business Analytics, MS](#)  
[Information Systems, M.S.](#)

### Doctoral Degrees

[Information Systems \(Business Administration\), Ph.D.](#)  
[Mathematical Sciences, Information Systems, Ph.D.](#)

## Management

### Master's Degrees

[Human Resource Management, M.S.](#)

### Doctoral Degrees

[Management \(Business Administration\), Ph.D.](#)

## Marketing

### **Master's Degrees**

[Marketing Research, M.S.](#)

### **Doctoral Degrees**

[Marketing \(Business Administration\), Ph.D.](#)

## **College of Education and Health Professions**

### **Educational Curriculum & Instruction**

#### **Master's Degrees**

[Accelerated Online Ed. Curriculum & Instruction, M.Ed. Mathematics](#)

[Accelerated Online Ed. Curriculum & Instruction, M.Ed. Trip. Lit.](#)

[Accelerated Online Ed. Curriculum & Instruction, M.Ed. Science](#)

[Ed. Curriculum & Instruction, M.Ed.](#)

[Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics](#)

[Ed. Curriculum & Instruction, M.Ed. Non Thesis Science](#)

[Ed. Curriculum & Instruction, M.Ed. Writing Focus](#)

[Mind, Brain and Education, M.Ed. Non Thesis](#)

[Reading Specialist, M.Ed.](#)

[Teaching - Early Childhood, M.Ed.T.](#)

[Teaching - Middle Level, M.Ed.T.](#)

[Teaching - Secondary Level, M.Ed.T.](#)

#### **Certificates**

[Education in Teaching, All Level Certificate](#)

[Education in Teaching, Early Childhood Certificate](#)

[Education in Teaching, Mid-Level Certificate](#)

[Education in Teaching, Secondary Level Certificate](#)

[English Secondary Language Certificate](#)

[Gifted & Talented Certificate](#)

[Master Reading Teacher Certificate](#)

[Master Tech. Teaching Certificate](#)

[Reading Specialist Certificate](#)

[School Counselor Certificate](#)

[Teaching - Teacher Certification Only](#)

### **Educational Leadership and Policy Studies**

#### **Master's Degrees**

[Accelerated Online Ed. Leadership & Policy Studies, M.Ed. Non Thesis](#)

[Ed. Leadership & Policy Studies, M.Ed.](#)

#### **Doctoral Degrees**

[Ed. Leadership & Policy Studies \(K-16\), Ph.D.](#)

#### **Certificates**

[Accelerated Online Ed. Leadership & Policy Studies, Superintendent](#)

[Ed. Leadership & Policy Studies, Certification Only](#)

[Principal Certificate](#)

[Superintendent Certificate](#)

### **Kinesiology**

#### **Master's Degrees**

[Athletic Training, M.S. Non Thesis](#)

[Exercise Science, M.S.](#)

#### **Doctoral Degrees**

[Kinesiology BS to PHD-DB](#)

[Kinesiology-PhD](#)

## College of Engineering

### Bioengineering

#### Master's Degrees

Biomedical Engineering, M.S.

#### Doctoral Degrees

Biomedical Engineering, B.S. to Ph.D.

Biomedical Engineering, Ph.D.

### Civil Engineering

#### Master's Degrees

Civil Engineering, M.Engr.

Civil Engineering, M.Engr. Fast Track

Civil Engineering, M.S.

Master of Construction Management

#### Doctoral Degrees

Civil Engineering BS to PhD-DB

Civil Engineering, Ph.D.

### Computer Science and Engineering

#### Master's Degrees

Computer Engineering, M.S.

Computer Science, M.S.

Software Engineering, M.SWEN.

#### Doctoral Degrees

Computer Engineering, B.S. to Ph.D.

Computer Engineering, Ph.D.

Computer Science, B.S. to Ph.D.

Computer Science, Ph.D.

Mathematical Sciences, Computer Science, Ph.D.

#### Certificates

Computer Science Unmanned Vehicle Systems Certificate

### Electrical Engineering

#### Master's Degrees

Electrical Engineering, M.Engr. Non Thesis

Electrical Engineering, M.S.

Electrical Engineering, M.S. Fast Track

#### Doctoral Degrees

Electrical Engineering, B.S. to Ph.D.

Electrical Engineering, Ph.D.

#### Certificates

EE Unmanned Vehicle Systems Certificate

### Industrial and Manufacturing Systems Engineering

#### Master's Degrees

Engineering Management, M.S.

Industrial Engineering, M.Engr.

Industrial Engineering, M.S.

Logistics, M.S.

## Systems Engineering, M.S.

### Doctoral Degrees

Industrial Engineering, B.S. to Ph.D.

Industrial Engineering, Ph.D.

### Certificates

IE Unmanned Vehicle Systems Certificate

## Materials Science and Engineering

### Master's Degrees

Materials Science and Engineering, M.Engr.

Materials Science and Engineering, M.S.

### Doctoral Degrees

Materials Science and Engineering, B.S. to Ph.D.

Materials Science and Engineering, Ph.D.

## Mechanical & Aerospace Engineering

### Master's Degrees

Aerospace Engineering, M.Engr.

Aerospace Engineering, M.S.

Mechanical Engineering, M.Engr.

Mechanical Engineering, M.S.

### Doctoral Degrees

Aerospace Engineering, B.S. to Ph.D.

Aerospace Engineering, Ph.D.

Mechanical Engineering, B.S. to Ph.D.

Mechanical Engineering, Ph.D.

### Certificates

Mech/Aerospace Unmanned Vehicle systems Certificate,

## College of Liberal Arts

### Art + Art History

#### Master's Degrees

Art, M.F.A.

### Communication

#### Master's Degrees

Communications, M.A.

### Criminology & Criminal Justice

#### Master's Degrees

Criminology and Criminal Justice, M.A.

### English

#### Master's Degrees

English, M.A.

#### Doctoral Degrees

[English, Ph.D.](#)

## History

### Master's Degrees

[History, M.A.](#)

### Doctoral Degrees

[Transatlantic History, B.A. to Ph.D.](#)

[Transatlantic History, Ph.D.](#)

### Certificates

[Archival Administration Certificate](#)

## Linguistics

### Master's Degrees

[Linguistics, M.A.](#)

[Teaching English to Speakers of Other Languages, M.A.](#)

### Doctoral Degrees

[Linguistics, B.A. to Ph.D.](#)

[Linguistics, Ph.D.](#)

### Certificates

[Teaching English to Speakers of Other Languages \(TESOL\)](#)

## Modern Languages

### Master's Degrees

[Modern Languages, M.A. \(Spanish or French Concentration\)](#)

### Certificates

[Modern Languages, French Certificate](#)

[Modern Languages, Spanish Certificate](#)

## Music

### Master's Degrees

[Music Performance, M.M. Non Thesis](#)

[Music Performance, M.M. Thesis](#)

[Music Theory, Masters](#)

[Music, M.M.](#)

### Certificates

[Performance Certificate](#)

[Performance-CT KBS \(Organ\)](#)

[Performance-CT KBS \(Piano\)](#)

[Performance-CTKBS\(Harpsichord\)](#)

## Political Science

### Master's Degrees

[Political Science, M.A.](#)

## Sociology and Anthropology

### Master's Degrees

[Anthropology, M.A.](#)

[Sociology, M.A. Non Thesis](#)

[Sociology, M.A. Thesis](#)

**Sociology, M.A. Thesis Substitute**

## College of Nursing

### Nursing

#### Master's Degrees

Accelerated Online MSN Nurse Pr-Adult Geri Acute  
Accelerated Online MSN Nurse PR-Adult Geri Primary  
Accelerated Online MSN Nurse Pr-Pedi Acute  
Accelerated Online MSN Nurse Pr-Pedi Primary  
Accelerated Online Nurse Educator, M.S.N. Non Thesis  
Accelerated Online Nurse Family Practitioner  
Accelerated Online Nursing Admin., M.S.N.  
Nurse Practitioner, M.S.N. Adult Geri Acute Care  
Nurse Practitioner, M.S.N. Adult Geri Primary Care  
Nurse Practitioner, M.S.N. Family FNP On Campus  
Nurse Practitioner, M.S.N. Family Psychiatric Mental Health  
Nurse Practitioner, M.S.N. Neonatal  
Nurse Practitioner, M.S.N. Pediatric Acute Care  
Nurse Practitioner, M.S.N. Pediatric Primary Care  
Nursing Admin. Executive, M.S.N. Non Thesis  
Nursing Education, M.S.N.

#### Doctoral Degrees

Accelerated Online DNP Nursing Practice  
Doctor of Nursing Practice, D.N.P.  
Nursing Administration, B.S.N. to Ph.D.  
Nursing Educator, B.S.N. to Ph.D.  
Nursing Practice-DNP  
Nursing, Clinical, B.S.N. to Ph.D.  
Nursing, Ph.D.

#### Certificates

Accelerated Online Cert Nursing Education  
Accelerated Online Cert Post Bac Nursing Admin  
Accelerated Online Cert Post Master's Adult Geri Acute  
Accelerated Online Cert Post Master's Family Nurse Prac  
Accelerated Online Cert Post Master's Pedi Acute  
Accelerated Online Cert Post Master's-Adult Geri Primary  
Accelerated Online Cert Post Master's-Pedi Primary  
Advanced Nursing Educator Role Certificate  
Nurse Educator  
Nurse Practitioner, Post Master Cert-Family  
Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care  
Nurse Practitioner, Post Masters Cert, Adult Geri Primary Care  
Nurse Practitioner, Post Masters Cert, Neonatal  
Nurse Practitioner, Post Masters Cert, Pediatric Acute Care  
Nurse Practitioner, Post Masters Cert, Pediatric Primary Care

## College of Science

### Biology

#### Master's Degrees

Biology, M.S.

#### Doctoral Degrees

Quantitative Biology, B.S to Ph.D.  
Quantitative Biology, Ph.D.

## Chemistry & Biochemistry

### Master's Degrees

Chemistry, M.S.  
Chemistry, M.S. Thesis Substitute

### Doctoral Degrees

Chemistry, B.S. to Ph.D.  
Chemistry, Ph.D.

## Earth and Environmental Sciences

### Master's Degrees

Earth and Environmental Science / Geology, M.S.

### Doctoral Degrees

Earth and Environmental Science, B.S. to Ph.D.  
Earth and Environmental Science, Ph.D.

### Certificates

Environmental Science Certificate  
G.I.S. and Spatial Information Systems Certificate  
Hazardous Materials and Waste Management Certificate  
Petroleum Geoscience Certificate

## Interdisciplinary Science

### Master's Degrees

Interdisciplinary Science, M.A.

## Mathematics

### Master's Degrees

Mathematics (General Mathematics), M.S.  
Mathematics (General Statistics), M.S.  
Mathematics, M.A.

### Doctoral Degrees

Mathematical Sciences, Mathematics, Ph.D.  
Mathematics (General Mathematics), B.S. to Ph.D.  
Mathematics (General Mathematics), Ph.D.  
Mathematics (General Statistics), B.S. to Ph.D.  
Mathematics (General Statistics), Ph.D.

### Certificates

Applied Statistics Certificate

## Physics

### Master's Degrees

Physics, M.S.

### Doctoral Degrees

Physics and Applied Physics, B.S. to Ph.D.  
Physics and Applied Physics, Ph.D.

## Psychology

### Master's Degrees

Psychology, Experimental, M.S.  
Psychology, Health/Neuroscience, M.S.  
Psychology, Industrial and Organizational, M.S.



### **Doctoral Degrees**

[Psychology, Experimental, Health, Ph.D.](#)

[Psychology, Experimental, Ph.D.](#)

[Psychology, Health/Neuroscience, Ph.D.](#)

## **School of Social Work**

### **Social Work**

#### **Master's Degrees**

[Social Work, M.S.S.W.](#)

[Social Work, M.S.S.W. Advanced Studies](#)

[Social Work, M.S.S.W. Non Thesis Advanced Specialty](#)

#### **Doctoral Degrees**

[Social Work, Ph.D.](#)

## **School of Urban and Public Affairs**

### **City and Regional Planning**

#### **Master's Degrees**

[City & Regional Planning, M.CIRP.](#)

#### **Certificates**

[Developmental Review Certificate](#)

[Geographical Information Systems Certificate \(GIS\)](#)

### **Interdisciplinary Studies**

#### **Master's Degrees**

[Interdisciplinary Studies, Sustainability, M.S. Non Thesis](#)

### **Public Administration**

#### **Master's Degrees**

[Accelerated Online Master of Public Administration](#)

[Public Administration, M.P.A. On Campus.](#)

#### **Certificates**

[Law & Public Policy Certificate](#)

[Public Budgeting and Financial Management Certificate](#)

[Urban Non-Profit Management Certificate](#)

### **Urban and Public Affairs**

#### **Master's Degrees**

[Urban Affairs, M.A.](#)

#### **Doctoral Degrees**

[Public & Urban Administration, Ph.D.](#)

[Urban Planning & Public Policy, Ph.D.](#)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)





# OFFICE OF GRADUATE STUDIES AT UT ARLINGTON



DISSERTATION COMPLETION RESOURCES

WORKSHOPS AND PROGRAMS

DS-PRO

FORMS AND PROCESSES FOR FACULTY/STAFF

FUNDING RESOURCES

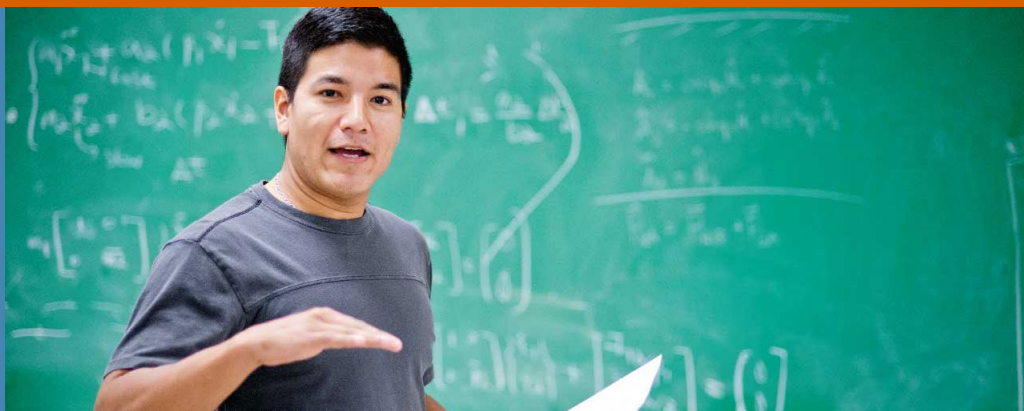
PROGRAM REVIEW

THESIS & DISSERTATION MANUAL

UNIVERSITY CATALOG

ACES ARCHIVES

ADMISSIONS/GRADUATION/COMMENCEMENT



*“As a member of the Graduate Student Senate, I have had the opportunity to meet other graduate students from various areas of study. This has produced a new network of people that I can connect with after graduate school.”*

**Adrian Rodriguez, Ph.D. (Mechanical Engineering)**

The Office of Graduate Studies is here to help develop students' potential for research, scholarship, creative expression, and professional success. To this end, we foster knowledge and professional skills, prepare graduate students for roles as thought-leaders, and promote the interests of our students and graduate education.

[Read more about our mission >](#)

## THE LATEST

### Funding Resources Website

Check out our new [website for graduate student funding](#). It contains information about internal funding sources, links to external funding sources, and tips on searching for funding.

Take a look at this video for more information:



## GRADUATE RESOURCES

### Graduate Advisors List

[Click here for a list of Graduate Advisors.](#)

### Gradsense

Find advice on budgeting, student loans, transitioning out of graduate school, in addition to evaluating and negotiating a job offer. This online resource, designed to inform graduate students about financial issues, is



### Thesis and Dissertation Manual

[Click here to access the Thesis and Dissertation Manual.](#)

[Click here to access graduation resources.](#)

[Click here to access the workshop document.](#)

available thanks to a collaboration between the Council of Graduate Schools and TIAA-CREF. [Click here for more information.](#)

### Online Career Resource

Interested in finding a career that uses the skills you learned in graduate school? Not sure what careers you are qualified to apply for? Take a look at The Versatile PhD for ideas. This online resource provides you with a career finder that helps you discover new opportunities and learn how to shape your resume for careers you might not have considered.

Take a look at The [Versatile PhD](#) to start exploring careers. If you've never registered for the site [click here to register](#) through the UT Arlington membership.

### Thesis/Dissertation Resources

Visit the [Resources for Graduation](#) page and find information that will keep you on track to graduate, including directions on how to submit your thesis/dissertation.





**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

Get Connected:

[Mav Grad Blog](#)

[Graduate Advisor Network](#)

[Facebook](#)

[Twitter](#)



The Home Of  
Endless Opportunities

[APPLY](#)

[VISIT](#)

[GIVE](#)

## Welcome to Maverick Country

Take a look at everything happening at UTA and you'll find opportunities just right for you.

[REQUEST INFO](#)

[MORE ABOUT UTA](#)

## Chloe

Interdisciplinary Studies

"With UTA, it was love at first sight."



### COMMENCEMENT

## The future's so bright

Class of '18 begins new journey with commencement ceremonies

### COMMENCEMENT INFO

**#1** in Texas for Veterans  
*(Military Times, 2017)*

**#1** among national public universities for graduating students with the least debt *(U.S. News & World Report, 2018)*

**#5** in the nation for undergraduate diversity  
*(U.S. News & World Report, 2018)*

### MORE RANKINGS

## Go Further

With expert faculty and more than 180 rigorous degree programs, we can help you reach the future you want.



**SCHOOLS AND COLLEGES**

**ACADEMIC CALENDAR**

**COURSE CATALOG**

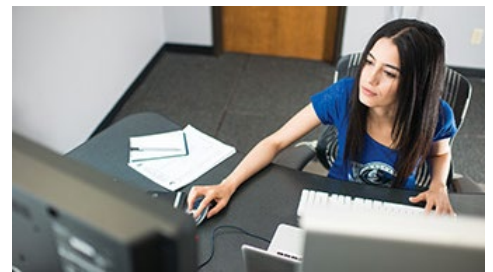
At every stage in your education, we put you in touch with the people and services that will help you achieve your goals.



Advising



Student Career Services



Financial Aid/Scholarships



A Community that Cares



Events Calendar



Tuition Information

**PARKING & SHUTTLES**

**HOUSING**

**HELP CENTER**





# Latest Stories

ALL NEWS



## NSF Graduate Research Fellowship

UTA doctoral student Marquerite Herzog studies biological mechanisms linked to PTSD.

### NEWS

## Woman in Technology

UTA bioengineering professor Hanli Liu earns Dallas Business Journal Women in Technology Award

### NEWS

## Research savvy

Chemistry graduate blends research into academic journey

### PUBLICATIONS

## *UTA Magazine*

The spring issue features new and old haunts around campus, the Class of 2021, and more.

A Model 21st-Century Urban Research University, UTA is pushing the boundaries of knowledge on our ever-growing campus.



## Leading in Genomics

The new North Texas Genome Center provides massive genome sequencing capabilities for biotech and health research.

[Read More](#)



## The 21st-Century Urban Research University

See what our research means to us. And what our research means to the world.

[Research at UTA](#)



## Strategic Plan | 2020

This strategic plan sets a path to unprecedented excellence in research, teaching, and community engagement.

[The Plan](#)

# Your University. Your Future.

When it comes to producing ideas and growing talent, UTA is among the best in the nation. See how UTA can help you realize your dreams.

[APPLY TODAY](#)

[ADMISSIONS INFO](#)

[VISIT](#)



[About Us](#)

[Student Life](#)

[Admissions](#)

[Giving](#)

[Academics](#)

[Athletics](#)

[Research](#)

[News Center](#)

© 2018 The University of Texas at Arlington

701 S. Nedderman Drive † Arlington, TX 76019 † 817-272-2011

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Report Sexual Misconduct](#)

[Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) |

[Report Fraud](#)



# 2013-2014 Graduate Catalog

## Search Our Catalog

Our search page needs to make a Cross-Site Request to function. Please turn on your web browser's Cross-Site Request capabilities, or refer to our [table of contents](#) below for help in finding the information you need.

### 2013-2014 Graduate Catalog – Home

- **Degree Requirements**
  - **Master's Degree Requirements**
  - **Dual Degree Requirements**
  - **Doctoral Degree Requirements**
- **Fields of Study**
  - **School of Architecture**
    - **Architecture**
    - **Landscape Architecture**
  - **College of Business**
    - **Accounting**
    - **Business Administration**
    - **Economics**
    - **Finance and Real Estate**
    - **Health Care Administration**
    - **Information Systems & Operations Management**
    - **Management**
    - **Marketing**
  - **College of Education and Health Professions**
    - **Curriculum and Instruction**
    - **Educational Leadership and Policy Studies**
    - **Kinesiology**
  - **College of Engineering**
    - **Bioengineering**
    - **Civil Engineering**
    - **Computer Science and Engineering**
    - **Electrical Engineering**
    - **Industrial and Manufacturing Systems Engineering**
    - **Materials Science and Engineering**
    - **Mechanical & Aerospace Engineering**

- **College of Liberal Arts**
  - **Art + Art History**
  - **Communication**
  - **Criminology & Criminal Justice**
  - **English**
  - **History**
  - **Humanities**
  - **Modern Languages**
  - **Linguistics**
  - **Music**
  - **Philosophy & Humanities**
  - **Political Science**
  - **Sociology and Anthropology**
  - **Theatre Arts**
- **College of Nursing**
  - **Nursing - MSN, DNP, & PhD**
- **College of Science**
  - **Biology**
  - **Chemistry & Biochemistry**
  - **Earth and Environmental Sciences**
  - **Interdisciplinary Science**
  - **Mathematics**
  - **Physics**
  - **Psychology**
- **School of Social Work**
  - **Social Work - MSSW & PhD**
- **School of Urban and Public Affairs**
  - **Public Administration**
  - **Urban and Public Affairs**
  - **City and Regional Planning**
- **Admissions Requirements & Procedures**
  - **Proposed Admissions Changes Effective August 2014**
- **General Information & Regulations**
  - **Board of Regents**
  - **Graduate School**
  - **Directory of UT Arlington Offices**
  - **Regulations**
  - **Tuition & Fees**
  - **Financial Aid**
  - **Student Services**
- **Graduate Calendar**
- **Graduate Faculty**

■ [Index](#)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## UT Arlington Honor Code

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will only submit work that I personally create or contribute to group collaborations, and reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

The University of Texas at Arlington Online Graduate Catalog is the official version of our catalog, and takes precedence over any printed version of the catalog. This catalog was published in June of 2013, and it supercedes the [2012-2013 Graduate Catalog](#). Students are governed by the catalog under which they were enrolled or, at a student's option, the catalog of any subsequent year in which that student was in residence. Please refer to our [Graduation Requirements and Procedures](#) for more information.

This catalog is a general information electronic publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees, rules, calendars, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled.

Students are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt students from whatever penalties they may incur.

Many departments and programs issue program manuals, procedures and policy manuals, graduate student handbooks and other informational publications for students and faculty in graduate programs. These publications provide detailed and useful information; however, they are not statements of official policy of The University of Texas at Arlington or of The University of Texas System. In all matters, the Rules and Regulations of the Board of Regents of The University of Texas System, the Handbook of Operating Procedures of The University of Texas at Arlington, and the Graduate Catalog of The University of Texas at Arlington shall supersede departmental, program or college publications.

Many of our [previous catalogs](#) are still available online. Catalogs that are no longer online are still available through the [University Archives](#). Please contact the [University Archivist](#) for more information.

Published in June of 2013. This catalog supercedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Master's Degree Requirements](#)[Dual Degree Requirements](#)[Doctoral Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Master's Degree Requirements

The following minimum requirements apply to all master's degrees, including the M.A., M.S., M.Arch., M.B.A., M.C.R.P., M.C.S., M.Engr., M.SW.Engr., M.Ed., M.Ed.T., M.F.A., M.L.A., M.P.A. (Accounting), M.P.A. (Public Administration), M.S.N. and M.S.S.W., offered by The University of Texas at Arlington. Additional requirements may be imposed for specialized or professional degree programs, or by individual departments or interdepartmental or intercampus graduate studies committees. These requirements are included in descriptions of individual degree programs.

### Departmental, Program and College Program Manuals for Students

Many departments and programs issue program manuals, procedures and policy manuals, graduate student handbooks and other informational publications for students and faculty in graduate programs. These publications provide detailed and useful information; however, they are not statements of official policy of The University of Texas at Arlington nor of The University of Texas System. In all matters, the *Rules and Regulations* of the Board of Regents of The University of Texas System, the *Handbook of Operating Procedures* of The University of Texas at Arlington, and the Graduate Catalog of The University of Texas at Arlington shall supersede departmental, program or college publications.

### Graduate Program Degree Requirements and Academic Performance Standards for Master's Degrees

Degree requirements and academic performance standards given in this section are the minimum required by Graduate School and University policy. Satisfying these general requirements and standards, however, does not imply that all degree and program requirements have been met. Many programs set special course requirements and may require higher grade-point averages or other academic standards than those given in this section. Such program requirements and standards are included in individual program descriptions in this catalog and in departmental and college program manuals or policy statements. These special requirements shall not be considered in conflict with this catalog and shall have the same force as this catalog.

### Undergraduate Preparation

Minimum undergraduate preparation acceptable for graduate concentration in most areas is 12 semester hours of advanced undergraduate work in that area; however, this requirement varies widely, and individual department and program descriptions should be consulted for specific requirements. The appropriate Committee on Graduate Studies may administer an oral, written, or both oral and written examinations to an applicant to assess undergraduate preparation for graduate work. The committee may require the student to eliminate deficiencies in undergraduate preparation before being granted unconditional acceptance into the graduate program.

### Residence

Master's degree candidates are expected to spend the equivalent of two semesters of full-time study in residence at The University of Texas at Arlington.



## Supervising Committees

The Dean of Graduate Studies will appoint for each master's student a supervising committee upon recommendation by the Graduate Advisor and the appropriate Committee on Graduate Studies. The committee will normally consist of at least three members of the graduate faculty and will be responsible for the design of the student's program. One qualified external person who is not a member of the graduate faculty may serve as a voting member of a supervising committee if nominated by the appropriate Committee on Graduate Studies and approved by the Dean of Graduate Studies. The nomination form is available on the Graduate School website under [Faculty & Staff, Forms](#) and must be submitted by the student's department to the Dean of Graduate Studies along with the nominee's curriculum vitae. Any external, non-voting members must be in addition to the three voting members and must be approved by the Dean of Graduate Studies. The supervising committee conducts the final thesis examination for thesis degree plan candidates and determines scope, content and form of the final master's comprehensive examination for thesis substitute and non-thesis degree plan candidates.

## Degree Plans and Hours Required

Three degree plans (thesis, thesis substitute and non-thesis) leading to the master's degree are available. All programs, except those in Education and Public Administration, offer the thesis degree plan. In certain departments and programs, a student may follow a thesis substitute or non-thesis degree plan upon recommendation of the appropriate Committee on Graduate Studies and approval by the Dean of Graduate Studies. Plans available in each department or program are listed in the catalog in the section on departmental and program descriptions.

The **thesis degree plan** requires a minimum of 30 semester hours, of which at least 24 must be in coursework and 6 in a thesis course. The thesis must be approved by the thesis advisor and by a supervising committee of three or more members appointed by the Dean of Graduate Studies. The thesis is subject to final approval by the Dean of Graduate Studies. Students receiving advice and assistance from a faculty member in the preparation of a thesis must register for the appropriate course even if they are not on campus. Each semester, after consulting with their Graduate Advisor, students must register for the amount of thesis credit commensurate with the efforts to be expended by the student and the thesis advisor in the preparation of the thesis. Once the student is enrolled in the thesis course, continuous enrollment is required. The student must be enrolled in six hours of thesis during the semester in which the thesis is defended and the final Master's Examination is unconditionally passed. The degree candidate must defend the thesis in a final oral examination open to all members of the faculty.

The **thesis substitute degree plan** requires a minimum of 33 semester hours, of which at least 27 must be in coursework and 3 in an appropriate project or research course. The thesis substitute may include: 1) internship reports in programs in which the internship has been determined by the Dean of Graduate Studies to be an essential component; 2) reports prepared in certain graduate seminar, conference or research courses; or 3) a design thesis in Architecture. The internship substitute requires a minimum of six semester hours in the internship course.

The **non-thesis degree plan** requires a minimum of 36 semester hours of coursework, of which at least 24 must be in the major area(s) of study.

## Application for Graduation

Students will be admitted to candidacy for the master's degree only when degree requirements have been met. Students must submit an Application for Graduation to the Graduate School by the deadline listed in the Academic Calendar in the semester they wish to graduate. The [Application for Graduation](#) is available online through the [Graduate School web site](#). See the [Graduate School Calendar](#) for specific deadline dates.

## Final Master's Examination

A final program examination is required for all master's degree candidates. The final master's examination can result in: 1) an unconditional pass with a recommendation to the Dean of Graduate Studies that the candidate be certified to receive the earned degree; 2) a conditional

pass with the requirement that additional conditions be met, which may include further work on the thesis or thesis substitute, additional coursework with a minimum specified grade-point average, or both (in all cases, the final master's examination must be repeated within a specified period); 3) failure, with permission to be re-examined after a specified period; or 4) failure, with recommendation to the Dean of Graduate Studies that the candidate be dismissed from the program. Most programs limit to two the number of repeats of the final master's examination. Additional repeats require specific advanced written approval by the Dean of Graduate Studies.

For **thesis degree plan** candidates, the examination will be an oral defense of the thesis. The examination will be conducted by all members of the student's supervising committee but will be open to all members of the faculty. The thesis examining committee must have copies of the thesis at least two weeks prior to the thesis defense.

For **thesis substitute** or **non-thesis degree plan** candidates, the final examination will be a comprehensive examination that is written, oral or both. The scope, content and form of the examination(s) is to be determined and administered by all members of the student's supervising committee. Some programs require successful completion of a specified course in the final semester of study to satisfy this requirement.

If applicable, the student's Graduate Advisor must submit a request for the thesis defense or final master's examination to the Graduate School. The request must indicate the time, place and form (oral and/or written) of the examination and be signed by all members of the examining committee, confirming their intention to be present.

The Final Master's Examination Report must be filed in the Graduate School no later than three weeks before the date on which the candidate expects the degree to be conferred. Thesis degree plan candidates must submit an electronic copy of the unconditionally passed thesis that has been approved for final submission by the Graduate School following the procedures for electronic submission. Candidates will be billed for the required fees as explained in the Tuition and Fees section of this catalog. Details of the submission process and all forms can be found in the **New & Current Students** section of the Graduate School website.

### Master's Thesis

All master's students must be aware of requirements, components and deadlines associated with the thesis, final defense, and submission of the thesis to the Graduate School. Thesis format review and approval by the Graduate School are required and must be completed in order to graduate from UT Arlington. The deadline dates for each semester are published in the Graduate School Calendar located at <https://grad.uta.edu/leftMenuPages/gradcalendar.asp> on the Graduate School website.

### Enrollment Requirement

A thesis degree plan student must be enrolled in the appropriate thesis course in the semester in which the thesis is defended. Social work students will enroll in SOCW 6393 to conduct thesis research and SOCW 6398 in the semester in which the thesis is defended. All other thesis option students must be enrolled in the appropriate 6 hour thesis course in the semester in which the thesis is defended.

### Thesis Manuscript Preparation

Students pursuing a thesis option master's degree must have the format of the thesis manuscript approved by the UT Arlington Graduate School before the degree can be conferred. The Graduate School specifically checks the document for conformity to UT Arlington formatting requirements. Details regarding thesis formatting requirements can be found on the Graduate School website at <http://grad.pci.uta.edu/students/services/thesis>. Format must conform to standards described in the current edition of The UT Arlington *Manual of Style*. A *Thesis Template* in which students can paste text is provided to simplify proper thesis formatting and appearance.

The Graduate School offers all master's students the opportunity to attend Thesis and Dissertation Seminars each semester. These seminars provide attendees with detailed explanations of the

style guides and hands-on experience with the template that will help students organize their theses in accordance to formatting requirements. In addition, thesis submission procedures and some graduation procedures and requirements are reviewed in these seminars. Reservations are recommended and can be made online through the Graduate School website.

### Master's Thesis Format Review

The format of all theses must be reviewed and approved by the Graduate School before the theses will be accepted as satisfying the thesis requirement of the Master's degree. Students must submit theses to the Graduate School as an electronic file using the electronic thesis and dissertation submission process for format checks.

### Preliminary Format Check

Thesis students have the option to submit a portion of the thesis to the Thesis and Dissertation Specialist in the Graduate School for a preliminary format check. The preliminary format check is not a requirement for graduation and is provided as a service for students who have questions regarding formatting. Students can generally expect feedback regarding the preliminary check within 72 hours (excluding weekends and holidays). However, students should be aware that completed theses submitted for mechanical check will be given priority over preliminary check submissions.

### Mechanical Check

In order to fulfill thesis requirements, master's thesis students must submit a copy of their thesis electronically to the Thesis and Dissertation Specialist in the Graduate School for a complete review of the format of the entire manuscript. This review is called the mechanical check. Students may be required to resubmit the document for additional checks depending on the nature and number of formatting errors found. The thesis submitted for mechanical check should be complete and as near to being in final format as possible.

Generally, students may expect the mechanical check to be completed within 72 hours of submission (excluding weekends and holidays). However, expect the mechanical check to take longer than 72 hours during peak submission periods which occur around submission deadlines. Semester deadlines for mechanical checks can be found in the [Graduate School Calendar](#).

### Final Submission

Students will be notified when their latest electronic submission is accepted and no further submissions are required.

All theses must be submitted by the deadline for final submission as listed on the online [Graduate School Calendar](#) and must be prepared according to regulations described in the current edition of The UT Arlington *Manual of Style*. All thesis students must also submit the Intellectual Property Statement and the appropriate Thesis and Dissertation Checklist. All forms are available online on the Graduate School website.

The final copy of the thesis is University property and a student may make no private agreements with employers, funding sources, or others that restrict or infringe upon University rights. Thesis copyrights, where applicable, are held by the student author. Thesis fees are explained in the Tuition and Fees section of the Graduate Catalog.

### Thesis Defense

A request for the thesis defense must be filed in the Graduate School by the student before the date of the defense. The thesis supervising committee must have copies of the dissertation at least two weeks prior to the thesis defense.

The thesis defense will be a public oral examination open to all members of the faculty. Questioning of the candidate will be directed by the student's thesis supervising committee. All members of the student's committee must be present at the defense.

Although the defense is concerned primarily with the thesis research and its interpretation, the examining committee may explore the student's knowledge of areas relevant to the core of the thesis problem. The thesis defense may result in a decision that the candidate has 1) passed unconditionally; 2) passed conditionally with remedial work specified by the committee; 3) failed, with permission to be re-examined after a specified period; or 4) failed and dismissed from the program. The thesis must be approved unanimously by the student's thesis supervising committee and by the Dean of Graduate Studies. Regardless of the outcome of the defense, the thesis defense report must be submitted to the Dean of Graduate Studies. When a scheduled defense is postponed or canceled, the Dean of Graduate Studies must receive written notice of this postponement or cancellation.

The thesis must be finalized with the Dean of Graduate Studies by the date specified in the [Graduate School Calendar](#). Upon acceptance of the final copy by the Graduate School, the student will be billed for the required fees as explained in the Tuition and Fees section of this catalog.

### Time Limit

Programs for the master's degree must be completed within six years (time in military service excluded) from initial registration in the Graduate School.

### Foreign Language Requirement

A reading knowledge of at least one foreign language (classical or modern) is required by some departments or programs for master's degree candidates. Specific language requirements, if any, are given in the individual departmental and program degree descriptions.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Master's Degree Requirements](#)[Dual Degree Requirements](#)[Doctoral Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Dual Degree Requirements

Students may pursue dual degree programs other than those specifically defined in the catalog with prior approval of the appropriate Committees on Graduate Studies and the Dean of Graduate Studies. Students wishing to pursue dual degree programs other than those specifically defined in the catalog should contact the Graduate School for details.

Students in any dual degree program must be admitted to each participating program. Unless otherwise stated under the dual degrees programs specified elsewhere in this catalog, the number of hours that may be used jointly will be determined by the total number of hours required by both degree programs if completed separately. For purposes of dual degree programs, the total number of semester hours required for both degrees if completed separately is defined as the number of semester hours required for a student to complete all advanced degree requirements (excluding deficiency, leveling and prerequisite courses) for both degrees.

1. Six semester hours may be used jointly when the total number of hours required for both degrees is 60;
2. Six to 12 semester hours may be used jointly when the total number of hours required for both degrees is between 60 and 72 hours;
3. Six to 18 semester hours may be used jointly when the total number of hours required for both degrees exceeds 72 hours.

Admission to and enrollment in the programs for a dual degree must be concurrent. Students must be admitted to the second program before completing more than 24 semester hours in the first program, exclusive of leveling, deficiency or foundation courses, and must complete the second degree within three academic years following completion of the first.

All grades earned in dual degree status are used for purposes of determining academic good standing, academic probation and graduate requirements.

Students must be in good standing in both programs to continue in a dual degree program. Students who are dismissed from either program are no longer considered to be in a dual degree program. These students may enroll in and use courses for credit toward the degree program in which they are in good standing only. Students may not take courses in the program from which they have been dismissed and may not use such courses for dual degree credit.

Dual degree programs are available at the master's level only. Not all graduate programs participate in dual degrees.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
 ©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Master's Degree Requirements](#)

[Dual Degree Requirements](#)

[Doctoral Degree Requirements](#)

[Fields of Study](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Doctoral Degree Requirements

The Doctor of Philosophy (Ph.D.) is the highest degree offered by The University of Texas at Arlington. The degree is awarded only for academic work of distinction through which the student demonstrates superior scholarship and capacity for original work. Requirements for the doctoral degree listed below are the minimum required by the Graduate School. Meeting all of these requirements does not result automatically in the awarding of the doctoral degree. All departments and programs have additional requirements for a high level of scholarly achievement that must be met by successful doctoral candidates. In all doctoral programs, the basic requirements are that a student 1) attain mastery of a field of knowledge as determined by the appropriate Committee on Graduate Studies and demonstrated in a general examination; and 2) present evidence of a capacity to complete a significant program of original research by preparation of a dissertation.

To be admitted to a doctoral program, an applicant must have completed a master's degree or at least 30 semester credit hours of graduate coursework.

### Departmental, Program and College Program Manuals for Students

Many departments and programs issue program manuals, procedures and policy manuals, graduate student handbooks, and other informational publications for students and faculty in graduate programs. These publications may provide detailed and useful information; however, they are not statements of official policy of The University of Texas at Arlington nor of The University of Texas System. In all matters the *Rules and Regulations* of the Board of Regents of The University of Texas System, the *Handbook of Operating Procedures* of The University of Texas at Arlington and the Graduate Catalog of The University of Texas at Arlington shall supersede departmental, program or college publications.

### Graduate Program Degree Requirements and Academic Performance Standards for Doctoral Degrees

Degree requirements and academic performance standards in the section entitled "Requirements for the Doctor of Philosophy Degree" are the minimum required by Graduate School and University policy.

Satisfying these general requirements does not imply that all degree and program requirements have been met. Many programs set special course requirements and may require higher grade-point averages or other academic standards than those in this section. Such program requirements and standards are included with individual program descriptions in this catalog.

### Residence

Residence requirements vary widely among doctoral programs. For specific requirements, consult the Degree Requirements section under individual departments and programs offering the doctoral degree.

### Courses and Semester Hour Requirements

The doctoral degree cannot be earned solely by passing certain courses and accumulating a



specified number of credit hours; however, a department or program may require a core group of courses for all of its doctoral students. Courses are generally concentrated in the student's major field, but some are normally taken in one or more complementary minor fields. In interdepartmental programs, the major work may be divided among two or more primary fields.

The Graduate School imposes no specific semester-hour requirements for the doctoral degree except for residence requirements included in individual degree program descriptions.

### Foreign Language Requirement

Prior to scheduling the doctoral comprehensive examination, the Graduate School requires evidence that the student has a reading knowledge of one foreign language applicable to the student's field of study or has attained proficiency in a research-tool area such as computer sciences or experimental statistics. Other suitable foreign language substitutes may be approved by the Dean of Graduate Studies.

The Ph.D. program in History requires a reading knowledge of at least one foreign language determined by either four semesters of credit in a single foreign language (grade B average), a standardized test, or a translation exam. The Ph.D. program in Chemistry requires competency in an approved computer language, and the Ph.D. program in Psychology has established a computer knowledge requirement in lieu of the foreign language requirement. For information regarding the foreign language requirement in the Program of Linguistics contact the Graduate Advisor. There is no foreign language requirement for the Ph.D. degree in UT Arlington engineering programs, but a research tool may be required as determined by the student's committee.

The foreign language requirement may be met by 1) successfully passing an examination prepared by an appointee of the Dean of Graduate Studies; 2) making an acceptable score on the Educational Testing Service Graduate School Foreign Language Test; or 3) earning a grade of B or higher in French, German or Russian 4331 and 4332, or equivalents. The foreign language substitute requirement may be met by a method determined by the appropriate Committee on Graduate Studies and approved by the Dean of Graduate Studies.

### Diagnostic Evaluation

During the student's first year of doctoral program work the student must demonstrate potential to successfully complete a degree program. The method of assessing the student's potential will be determined by the appropriate Committee on Graduate Studies and may be in the form of a written or oral examination, personal interviews with faculty members, successful completion of certain courses in the first semester of residence, or by any combination of these methods. Results of the diagnostic evaluation may be 1) approval to continue in the doctoral program; 2) approval to continue with specified remedial work; 3) failure, but with permission for assessment through a second diagnostic evaluation after a specified period; or 4) failure and termination in the program. The student must be enrolled in the Graduate School in the semester in which he/she completes the diagnostic evaluation.

The diagnostic evaluation report must be filed in the Graduate School by the student's Graduate Advisor no later than after completion of 18 semester hours of coursework while enrolled in a doctoral program at UT Arlington .

After the student successfully completes the diagnostic evaluation, the Dean of Graduate Studies will approve an examining committee. Members for the committee are recommended by the Graduate Advisor and appropriate Committee on Graduate Studies. The committee will consist of no fewer than 3 voting members, at least two of whom must be from the student's major area. One qualified external person who is not a member of the graduate faculty may serve as a voting member of a supervising committee if nominated by the appropriate Committee on Graduate Studies and approved by the Dean of Graduate Studies. The nomination form is available on the Graduate School website under [Faculty & Staff, Forms](#) and must be submitted by the student's department to the Dean of Graduate Studies along with the nominee's curriculum vitae. Any external, non-voting members must be in addition to the required number of voting members. A student in a traditional degree program must have a minimum of three voting members on his or

her committee. Individual programs may require the committee to have more members and students must conform to such requirements. Students should consult with their program's Graduate Advisor to make sure their committees have sufficient membership to meet program requirements.

The committee is responsible for design and direction of the student's program. After the student has passed the comprehensive examination, the doctoral supervising committee may be altered or expanded to accommodate the dissertation research needs of the student, but the committee must include at least three voting members. Committees in interdisciplinary programs must include at least four voting members with two members coming from each discipline. Any external, non-voting members in addition to the required number of voting members of the committee must be approved by the Dean of Graduate Studies.

### Comprehensive Examination

Students are eligible to take the comprehensive examination after giving evidence to their doctoral committee of adequate academic achievement by having completed all or most coursework requirements for a degree. The comprehensive examination usually marks the end of formal coursework and the beginning of concentrated work on dissertation research and preparation. The student must be enrolled in the Graduate School in the semester in which he/she takes the comprehensive examination.

The comprehensive examination may be written, oral, or both. Its scope, content, and form are determined by the student's examining committee with approval of the appropriate Committee on Graduate Studies. The student must submit a Request for the Comprehensive Examination to the Graduate School and the request must indicate the time, place, and form (oral and/or written) of the examination and include signatures of all members of the examining committee.

In some departments and programs comprehensive examinations are given semiannually so students should consult their Graduate Advisor in that program for appropriate regulations and procedures.

The comprehensive examination may result in 1) unconditional pass and recommendation to proceed to the next phase of the program; 2) approval to remain in the program, but required to meet certain specified additional criteria; 3) failure, but with permission to retake the examination after a period specified by the examining committee; or 4) failure and dismissal from the program.

### Dissertation

The dissertation represents the culmination of the student's academic efforts and so is expected to demonstrate original and independent research activity and be a significant contribution to knowledge.

A doctoral student working on a dissertation should be enrolled in an appropriate 6X99 or 7399 dissertation course. Once the student is enrolled in a dissertation course, continuous enrollment is required. A student receiving advice and assistance from a faculty member in the preparation of a dissertation must register in the course even if the student is not on campus. A student must be enrolled in the appropriate 3, 6, or 9-hour dissertation course in the semester in which the dissertation is defended.

### Registration in Doctoral Courses

1. Registration in an independent study, research, or similar course implies an expected level of effort on the part of the student that is at least equivalent to that of an organized course of the same credit value.
2. Doctoral students will not be required to register for more than nine credit hours during any long semester or summer, except that:
  - a. Doctoral students who are enrolled in nine credit hours of organized courses and who are also doing research related to their dissertation may be required to register for up to three hours of research for a total of 12 credit hours.
  - b. Doctoral students supported as a graduate research or teaching assistants



may be required to register for 12 credit hours (no more than nine credit hours to be in organized courses), as determined by the students' graduate program.

3. Doctoral students who are required to register solely to satisfy the continuous enrollment requirement may register 3 credit hours during each term.
4. Doctoral students may not register for more than 12 semester hours in a semester or summer session unless such registration is approved by the student's Graduate Advisor.

### Dissertation Requirements

All doctoral students must be aware of requirements and deadlines associated with the dissertation, final defense, and submission of the final copy of the dissertation to the Graduate School. The deadline dates for each semester are published in the Graduate School Calendar.

### Enrollment During the Dissertation Defense Semester

Doctoral students must be enrolled in the appropriate 3, 6, or 9 hour dissertation course in the semester in which the dissertation is defended.

### Dissertation Manuscript Preparation

Students pursuing a doctoral degree must have the format of the dissertation manuscript approved by the Graduate School before the degree can be conferred. The Graduate School specifically checks the document for conformity to UT Arlington formatting requirements. Details regarding dissertation formatting requirements can be found on the Graduate School website at <http://grad.pci.uta.edu/students/servicees/thesis>. Format must conform to standards described in the UT Arlington *Manual of Style. A Dissertation Template* in which students can paste text is provided to simplify proper dissertation formatting and appearance.

The Graduate School offers Thesis and Dissertation Seminars each semester and encourages all dissertation students to attend. These seminars provide attendees with detailed explanations of the style guides and hands-on experience with the template that will help students organize their dissertation in accordance to formatting requirements. In addition, dissertation submission procedures, and some graduation procedures and requirements are reviewed in these seminars. Reservations are recommended and can be made online through the Graduate School website.

### Doctoral Dissertation Format Review

The format of all dissertations must be reviewed and approved by the Graduate School before the dissertation will be accepted as satisfying the dissertation requirement of the Doctoral degree. Students must submit dissertations to the Graduate School as an electronic file using the electronic thesis and dissertation for format checks.

### Preliminary Format Check

Dissertation students have the option to submit a portion of the dissertation to the Thesis and Dissertation Specialist in the Graduate School for a preliminary format check. The preliminary check is not a requirement for graduation and is provided as a service for students who have questions regarding formatting. Students can generally expect feedback from the preliminary check within 72 hours (excluding weekends and holidays). However, students should be aware that completed theses and dissertations submitted for mechanical check will be given priority over those submitted for preliminary checks.

### Mechanical Check

In order to fulfill dissertation requirements, doctoral students must submit a copy of the dissertation electronically to the Thesis and Dissertation Specialist in the Graduate School for a complete review of the format of the entire manuscript. This is called the mechanical check. Students may be required to resubmit the document for additional checks depending on the nature and number of formatting errors found. The dissertation submitted for mechanical checking should be complete and as near to being in final format as possible.

Generally, students may expect the mechanical check to be completed within 72 hours of submission (excluding weekends and holidays). However, expect the mechanical check to take longer than 72 hours during peak submission periods which occur around submission deadlines. Semester deadlines for mechanical checks can be found in the [Graduate School Calendar](#).

### Final Submission

Students will be notified when their latest electronic submission is accepted and no further submissions are required.

All dissertations must be submitted by the deadline for final submission listed on the online [Graduate School Calendar](#) and must be prepared according to regulations described in the current edition of The UT Arlington *Manual of Style* and the *Dissertation Template* available online on the Graduate School website . at <http://grad.pci.uta.edu/students/services/thesis> . All dissertation students must also submit the Intellectual Property Statement, the appropriate Thesis and Dissertation Checklist, and the Survey of Earned Doctorates. All forms are available on the Graduate School website.

The final copy of the dissertation is University property and a student may make no private agreements with employers, funding sources, or others that restrict or infringe upon University rights. Copyrights, where applicable, are held by the student author. Dissertation fees are explained in the Tuition and Fees section of the Graduate Catalog.

### Dissertation Defense

A request for the dissertation defense must be filed in the Graduate School by the student before the date of the defense. The dissertation supervising committee must have copies of the dissertation at least two weeks prior to the dissertation defense.

The dissertation defense will be a public oral examination open to all members (faculty, students and invited guests) of the University community. Questioning of the candidate will be directed by the student's dissertation supervising committee. All members of the student's committee must be present at the defense.

Although the defense is concerned primarily with the dissertation research and its interpretation, the examining committee may explore the student's knowledge of areas relevant to the core of the dissertation problem. The dissertation defense may result in a decision that the candidate has 1) passed unconditionally; 2) passed conditionally with remedial work specified by the committee; 3) failed, with permission to be re-examined after a specified period; or 4) failed and dismissed from the program. The dissertation must be approved unanimously by the student's dissertation supervising committee and by the Dean of Graduate Studies. Regardless of the outcome of the defense, the dissertation defense report must be submitted to the Dean of Graduate Studies. If a scheduled defense is postponed or canceled, the Dean of Graduate Studies must receive written notice of this postponement or cancellation.

The dissertation must be finalized with the Dean of Graduate Studies by the date specified in the [Graduate School Calendar](#). Upon acceptance of the final copy by the Graduate School, the student will be billed for the required fees as explained in the Tuition and Fees section of this catalog.

### Time Limit

All requirements for the doctoral degree must be completed within four years after the student unconditionally passes the comprehensive examination.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public Affairs](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Fields of Study

### School of Architecture

[Architecture](#)  
[Landscape Architecture](#)

### College of Business

[Accounting](#)  
[Business Administration](#)  
[Economics](#)  
[Finance and Real Estate](#)  
[Health Care Administration](#)  
[Information Systems & Operations Management](#)  
[Management](#)  
[Marketing](#)

### College of Education and Health Professions

[Educational Curriculum & Instruction](#)  
[Educational Leadership and Policy Studies](#)  
[Kinesiology](#)

### College of Engineering

[Bioengineering](#)  
[Civil Engineering](#)  
[Computer Science and Engineering](#)  
[Electrical Engineering](#)  
[Industrial and Manufacturing Systems Engineering](#)  
[Materials Science and Engineering](#)  
[Mechanical & Aerospace Engineering](#)

### College of Liberal Arts

[Art + Art History](#)  
[Communication](#)  
[Criminology & Criminal Justice](#)  
[English](#)  
[History](#)  
[Linguistics](#)  
[Modern Languages](#)  
[Music](#)  
[Political Science](#)  
[Sociology and Anthropology](#)

### College of Nursing

[Nursing](#)

### College of Science

[Biology](#)  
[Chemistry & Biochemistry](#)  
[Earth and Environmental Sciences](#)

**Interdisciplinary Science**  
**Mathematics**  
**Physics**  
**Psychology**

**School of Social Work**  
**Social Work**

**School of Urban and Public Affairs**  
**City and Regional Planning**  
**Interdisciplinary Studies**  
**Public Administration**  
**Urban and Public Affairs**

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[Proposed Admissions Changes Effective August 2014](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Admissions Requirements & Procedures

### Admission

#### Basic Admission Requirements

#### Application

- [Application Evaluation Charges](#)

#### Application Documentation Requirements: Required Official Transcripts, Marksheets, Diplomas and Standardized Tests

- [U.S. Transcript Criteria](#)
- [Foreign Country Transcripts or Marksheets and Diplomas Criteria](#)
- [Standardized Test Score Reports](#)
- [TOEFL and IELTS Test Score Minimums](#)
- [TOEFL IBT or IELTS Requirements for Graduate Teaching Assistants](#)
- [Retention of Application Materials](#)

#### Notification of Applicants Regarding Admission Decisions

#### Types of Admission Decisions

- [Unconditional Admission](#)
- [Probationary Admission](#)
- [Provisional Admission](#)
- [Deferred Admission](#)
- [Denied Admission](#)
- [Graduate English Skills Program](#)

#### Application Deadline and Admission Requirements for United States Citizen Applicants

- [Calculation of the Grade-Point Average for Admission Purposes for Students With Degrees From U.S. Colleges and Universities](#)

#### Academic Fresh Start

- [Undergraduate Programs](#)
- [Postgraduate/Professional Programs](#)

#### Application Deadline and Admission Requirements for International and U.S. Resident Alien Applicants

- [Calculation of the Grade-Point Average \(GPA\) for Admission Purposes for Students With Degrees From International Colleges and Universities](#)

#### Special Admissions Programs

- [Facilitated Admission of Outstanding UT Arlington Undergraduates](#)
- [Waiver of the Graduate Record Examination](#)

- **Fast Track**
- **Non-Degree Seeking (Special) Applicants and Graduate Certificate Applicants**
- **Changing Starting Semester, Program, or Degree Level Prior to Admission at UT Arlington**
- **Readmission**

#### Graduate Student Advisement

#### Registration

#### Restrictions on Admission

- **General Restriction**
- **Faculty Members**

**This catalog is a general information publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington Graduate Studies Office or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees or tuition, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled. Students are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt a student from whatever penalties the student may incur.**

## Admission

The admission requirements set forth in the following pages are the minimum standards required for admission to graduate school. Meeting them does not guarantee acceptance into a departmental degree program because most departments have more stringent admission standards.

The admission policies of Graduate Admissions and the academic departments of The University of Texas at Arlington comply with standards specified by the Texas Education Code, Section 51.842. Specifically, performance on a standardized test is not the sole criterion for consideration of an applicant for admission or the primary criterion to end consideration of the applicant for admissions. Relevant experience, commitment to the field of planned study, multilingual proficiency, and socioeconomic background (to the extent that it can be identified) may also enter into these decisions. This law does not apply to standardized tests used to measure the English language proficiency of non-native English speakers without a bachelor's or master's degree from a regionally accredited U.S. institution.

## Basic Admission Requirements

Graduate Admissions requires that basic admission requirements be met before a student can be accepted. In meeting these requirements, an applicant 1) must have a bachelor's degree from a regionally accredited U.S. college or university or its foreign equivalent, with a satisfactory grade-point average; 2) must have an acceptable and current score on the aptitude tests of the Graduate Record Examination or the Graduate Management Admission Test, as specified by the department or program to which application is being made; 3) demonstrate potential for graduate work in the chosen field through previous academic performance; and 4) be approved for admission by the department in which a degree is sought. Admission to a doctoral program additionally requires a master's degree, or successful completion of at least 30 graduate hours, from a regionally accredited U.S. college or university or its foreign equivalent. Certain programs require students to submit to, and satisfactorily complete, a background check review as a condition of admission and/or participation in education experiences. Students who refuse to submit to a background check or who do not pass the background check may be dismissed from the program. Applicants should examine departmental requirements with care.

## Application

Application for admission must be made on official application forms. Students may complete the application online by accessing our Web site <http://grad.uta.edu>. Please note, you may only submit one application, and be considered for admission to one program at a time.

## Application Evaluation Charges

A non-refundable application evaluation charge is required of all applicants. Payment must be received before processing can begin. There are no exceptions to this policy.

A non-refundable evaluation charge of \$40 is required of all U.S. citizens and U.S. Resident Alien applicants who have completed all of their college or university work at institutions located in the United States. A \$70 evaluation charge is required of all U.S. citizens and U.S. Resident Alien applicants who have completed some or all undergraduate or graduate coursework at an institution located outside of the United States.

All international students are required to pay a non-refundable \$70 application evaluation charge.

## Application Documentation Requirements: Required Official Transcripts, Marksheets, Diplomas and Standardized Tests

Graduate Admissions application processing requires receipt of official U.S. transcripts or foreign country transcripts or marksheets and diplomas. Unattested, notarized or fax copies of U.S. transcripts, foreign country transcripts, marksheets, diplomas, test scores and other academic records are not acceptable for processing purposes. Acceptable transcripts, marksheets and diplomas from U.S. and international institutions are described below. Documents meeting the indicated criteria will be accepted by Graduate Admissions for admission purposes. Unacceptable documents will prevent or cause delays in admission processing.

### U.S. Transcript Criteria

Official transcripts from U.S. institutions are those mailed directly to Graduate Admissions by the Registrar or responsible head of the institution at which the work was attempted or completed. An official original "issued to student" transcript on safety paper with the official university seal and signature of the university's Registrar may be acceptable upon Graduate Admissions review. Submit one set of transcripts. Currently or previously enrolled UT Arlington students do not have to request UT Arlington transcripts be forwarded by the UT Arlington Registrar to Graduate Admissions.

### Foreign Country Transcripts or Marksheets and Diplomas Criteria

Official foreign country transcripts or marksheets and diplomas are those bearing the original seal of the institution and the original signature of the Registrar or responsible head of the institution. Those not issued in English must be accompanied by an exact word for word original English translation bearing the original university or translation agency attestation. Submit one set of transcripts or marksheets and diplomas. They may be sent directly to Graduate Admissions by the institution or by the applicant.

### Standardized Test Score Reports

Official test score reports for the Graduate Record Exam (GRE), and Test of English as a Foreign Language (TOEFL) are issued by the Educational Testing Service (ETS) and sent by ETS directly to Graduate Admissions. Official test score reports for the Graduate Management Admission Test (GMAT) are issued by the Graduate Management Admission Council (GMAC) and sent by GMAC directly to Graduate Admissions. Current information about GRE, GMAT, and TOEFL test dates, locations and registration procedures is published by ETS at [www.ets.org](http://www.ets.org). For current information about the GMAT including test dates, locations, registration procedures, and time frames for test score validity, access [www.mba.com](http://www.mba.com). Official test scores for the International English Language Testing System (IELTS) are reported on an IELTS issued Test Report Form (TRF) and sent directly to the Graduate School from IELTS. Current information about IELTS test dates, locations and registration procedures is published by IELTS at [www.ielts.org](http://www.ielts.org).

Graduate Admissions sets test score minimums for tests that measure English proficiency such as the TOEFL and IELTS; however, individual departments and programs may impose a more stringent test score requirement. Individual departments and programs may evaluate GRE or GMAT scores as one of several criteria to determine admissibility. Test scores do not constitute the sole or primary basis for ending consideration of an applicant. Applicants should refer to individual departmental or program section for test requirements.

### TOEFL and IELTS Test Score Minimums

An applicant whose native language is not English must demonstrate a sufficient level of skill with the English language to assure success in graduate studies. Applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section.



to meet this requirement.

An applicant holding either a bachelor's or a master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL or IELTS score for admission purposes. Any other waivers of the score requirements must be recommended by the applicant's Graduate Advisor and approved by Graduate Admissions.

### TOEFL iBT or IELTS Requirements for Graduate Teaching Assistants

Before being appointed to an assistantship at UT Arlington, a student whose native language is not English must demonstrate acceptable skill with spoken English. An applicant who is a non-native speaker of English must submit a TOEFL iBT score of at least 23, or a score of at least 7 on the Speaking section of the IELTS, or take and pass the UTA Developmental English course to meet this requirement. Only official scores provided directly to UT Arlington by ETS or IELTS are acceptable. The English proficiency requirement will be waived for non-native speakers of English who possess a bachelor's degree from an accredited U.S. institution.

### Retention of Application Materials

Application materials become property of The University of Texas at Arlington and cannot be returned.

## Notification of Applicants Regarding Admission Decisions

While admission related information received from the graduate program to which an individual has applied may be important and useful, such information does not constitute official notice of admission into graduate school or into a graduate program at The University of Texas at Arlington.

Official notification of the admission decision is sent by Graduate Admissions directly to the applicant. It is very important that applicants read this notice carefully because it describes any conditions or restrictions placed on admission that must be addressed. Many of these conditions must be satisfied before the end of the first semester of enrollment. If they are not, a student may be barred from enrolling in subsequent semesters. Thus applicants should read the notice and keep it for future reference. Admission conditions described in official notification letters are described in the following section.

## Types of Admission Decisions

After an applicant's credentials have been evaluated by the Graduate Advisor in the applicant's major area and by Graduate Admissions, the applicant will be notified by letter and email from Graduate Admissions of: 1) acceptance and admission under one of the categories of admission listed below; or 2) denial of application; or 3) deferral of application for reasons listed in the letter. If accepted, an acceptance notification will be sent by Graduate Admissions stating the conditions for admission, if any, and the semester of validity of the acceptance. Applicants who have not received an admission notification one week prior to the beginning of classes for the semester for which admission is sought should contact Graduate Admissions for information concerning the status of their application.

### Unconditional Admission

An applicant who meets all requirements is normally considered for unconditional admission.

### Probationary Admission

An applicant who does not meet all requirements for unconditional admission nevertheless may show promise for successful graduate study and, upon recommendation of the appropriate Committee on Graduate Studies and approval of Graduate Admissions, may be granted probationary admission. Special course requirements or other conditions may be imposed by the Committee on Graduate Studies in the student's major area and/or by Graduate Admissions.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission upon recommendation of the appropriate Committee on Graduate Studies and approval of Graduate Admissions. Complete and satisfactory credentials must be received by Graduate Admissions before the end of the semester in which the student has registered in a provisional status. A student will not be permitted to enroll in graduate school with a provisional status for more than one semester. Provisional admission does not guarantee subsequent admission on an unconditional basis. International applicants residing outside of the United States at the time of application may not be admitted on a provisional basis.

A student may not hold an assistantship while in provisional status.

### Deferred Admission

If an applicant does not present adequate evidence of being able to supply the required application materials or must complete additional preparatory work before their admissibility can be determined, the admission decision may be deferred until the records are complete. The applicant will be sent an Admission Deferral Notice specifying the data that must be provided or the work that must be completed before the application will be reconsidered. The application may be reactivated for reprocessing by completing the "Reactivate an Admissions Application" on our Web site <http://grad.uta.edu>. An application evaluation charge will be required for each reprocessing request unless the request is made for the original semester and program.

### Denied Admission

Admission is typically denied if an individual fails to meet more than one of the admission standards of the department to which he or she applied, and the admission committee feels that there is insufficient basis to justify a probationary, provisional or deferred admission recommendation. As the admission process is competitive, students meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

Applicants denied admission to graduate school may not take or reserve graduate courses for graduate credit, or enroll as a special non-degree seeking or graduate certificate student. Applicants denied admission may ask the Graduate Advisor in the program to which they applied about the deficiencies that led to the denial. Upon recommendation of the Graduate Advisor, applicants denied admission due to a low bachelor's degree grade point average, may take undergraduate courses at UT Arlington or another senior level or four year regionally accredited institution, in order to raise their grade point average. Applicants may reactivate their admission if the deficiencies in credentials that led to denial are remedied. An application evaluation charge will be required for each reactivation request.

### Graduate English Skills Program

The Graduate English Skills Program (GESP) comprises an intensive English course designed for international students who have been conditionally accepted to graduate school because of marginally acceptable scores on verbal admission tests.

The program focuses on improving English language skills in the areas of academic writing, reading/research skills, note taking from academic lectures, accent reduction and oral presentations. Instruction includes technological support materials.

International students must receive admission from Graduate Admissions at UT Arlington and permission from their graduate departments to enroll in GESP to remove their English deficiencies.

Students who receive permission to enroll in GESP are tested in writing, reading, speaking and listening. Based on the outcome of placement tests, the English Language Institute (ELI) will recommend to the graduate departments the areas where each student needs improvement. A student may be required to take no further English up to a maximum of three skill areas (five hours) per day. Students studying less than five hours of English per day may be allowed by their department to enroll in some graduate courses as well.

At the end of a semester, if the student has attained a minimum average of 85% during the semester, the GESP Coordinator will recommend to the graduate department that the student enroll for all graduate courses or continue studying English. Most students complete their English requirements in a semester.

GESP tuition charges and other information can be found at <http://eli.uta.edu> or contact the GES P Coordinator at the English Language Institute, Box 19560, Arlington, Texas 76019. Phone: 817.272.7576. Fax: 817.272.2731.

## Application Deadline and Admission Requirements for United States Citizen Applicants

A U.S. citizen student may complete the application online. Since admission requirements vary and are program specific, go to our Web site at <http://grad.uta.edu> for admission criteria specific to each individual department and program. The application and following required credentials should be submitted preferably 90 days prior to the date of expected enrollment: 1) one set of official transcripts of all undergraduate and graduate college work; currently or previously enrolled UTA students do not have to request UTA transcripts be forwarded by the UTA Registrar to Graduate Admissions; 2) official GRE or GMAT test score as required by the intended program; 3) official TOEFL or IELTS test score, if applicable; 4) three letters of recommendation; 5) general academic plans; and 6) a nonrefundable application

evaluation charge of \$40, if no foreign college or university work or \$70, if foreign college or university work.

Some graduate programs may set deadlines for admission or consideration of applicants for graduate assistantships that are earlier than general deadlines established by Graduate Admissions. Such deadlines will be included in descriptions of admission requirements provided by each department. Applicants should read those materials carefully and submit their application materials before a departmental deadline passes. If the department does not specify a deadline, applicants should meet the Graduate Admissions deadlines described above.

## Calculation of the Grade-Point Average for Admission Purposes for Students With Degrees From U.S. Colleges and Universities

The grade-point average for admission to graduate school at The University of Texas at Arlington is calculated according to Texas law and the policies and procedures of Graduate Admissions. For applicants completing work in U.S. institutions of higher learning, calculation of the grade-point average for admission purposes is based on the last two years of courses from the bachelor's degree transcript, on a 4.0 scale. In practice, this grade-point average is based on approximately the last 60 semester hours or the equivalent in quarter hours (90 quarter hours) shown on an applicant's bachelor's degree transcript.

In cases in which an applicant's transcript shows repeated courses, the grade-point calculation includes all grades earned in those courses.

For an applicant who applies before official receipt of the bachelor's degree, the grade-point calculation will include all senior college and university work completed to date. The grade-point average will not be automatically recalculated upon receipt of the degree.

An applicant wishing to have undergraduate courses completed after their degree included in the grade-point calculation may submit a written request to Graduate Admissions at the time the application for admission is submitted.

An additional grade-point average is calculated for an applicant awarded or completing a master's or doctoral degree at the time application to UTA is made. For master's level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's degree at the institution from which the degree has been or will be awarded. For doctoral level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's and master's degree at the institution from which the doctoral degree has been or will be awarded. The grade-point average will be calculated on the basis of information provided at the time application to UTA is made and will not be automatically recalculated upon completion of on-going work or award of a degree.

International applicants and others with degrees earned outside the United States should see the grade-point calculation information under Admission of International Students and Resident Aliens.

The following are not included in grade-point calculations for admission purposes:

1. courses completed at junior or community colleges
2. courses completed by examination or correspondence
3. incomplete grades or withdrawals
4. pluses and minuses
5. personal improvement courses such as activity courses in physical education
6. graduate courses or any courses completed in graduate student status (a graduate grade-point average will be calculated and reported separately)
7. courses in which the grade is a P, pass, credit, satisfactory or other such designation

## Academic Fresh Start

### Undergraduate Programs

Texas residents may seek to enter undergraduate programs at U.T. Arlington under provisions of the "academic fresh start" statute, Section 51.931 of the Texas Education Code. When applicants inform U.T. Arlington admissions officials in writing of their decision, U.T. Arlington will not consider in the admissions decision any academic course credits or grades earned 10 or more years prior to the starting date of the semester in which the applicant seeks to enroll. Applicants who decide to apply under this statute may not receive any course credit for courses taken 10 or more years prior to enrollment under academic fresh start.

## Postgraduate/Professional Programs

Applicants who have earned baccalaureate degrees under the "academic fresh start" statute, Section 51.931 of the Texas Education Code, and who apply for admission to a postgraduate or professional program will be evaluated on only the grade-point average of the course of work completed for that baccalaureate degree and the other criteria stated herein for admission to the postgraduate or professional program.

### Application Deadline and Admission Requirements for International and U.S. Resident Alien Applicants

An International or U.S. Resident Alien applicant may complete the application online. Since admission requirements vary and are program specific, go to our Web site at <http://grad.uta.edu> for admission criteria specific to each individual department and program. The application and following required credentials should be submitted preferably 120 days prior to the date of expected enrollment: 1) all international students must submit a nonrefundable application evaluation charge of \$70. U.S. Resident Alien applicants WITH foreign college or university work must submit a non-refundable application evaluation charge of \$70. U.S. Resident Alien applicant WITHOUT foreign college or university work must submit a non-refundable application charge of \$40; 2) one set of official marksheets, diplomas or transcripts of all undergraduate and graduate coursework; 3) official GRE or GMAT test score as required by the intended program; 4) official TOEFL or IELTS test score, if applicable; 5) three letters of recommendation; 6) general academic plans; 7) financial and/or immigration documentation as specified in the application instructions.

### Calculation of the Grade-Point Average (GPA) for Admission Purposes for Students With Degrees From International Colleges and Universities

The calculation of the GPA for international applicants and U.S. resident aliens who have earned degrees from colleges or universities in the United States follows the policies and procedures for U.S. applicants. The diversity of marksheets and transcripts from foreign universities requires flexibility in calculating approximate equivalents of U.S. GPAs. Generally, GPAs for applicants with foreign degrees are calculated using the final grade for courses taken in the last two years of the applicants' undergraduate program. For an applicant who applies pending receipt of the bachelor's degree, the GPA calculation will include final course grades for the last two years of undergraduate work available at the time the application is submitted for processing. All grades are converted to the U.S. 4-point scale. Pluses and minuses, graduate courses, and personal improvement courses such as physical education are not included in these calculations.

An additional grade-point average is calculated for an applicant awarded or completing a master's or doctoral degree at the time application to UTA is made. For master's level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's degree at the institution from which the degree has been or will be awarded. For doctoral level students, the grade-point calculation will include all graduate level courses taken subsequent to the bachelor's and master's degree at the institution from which the doctoral degree has been or will be awarded. The grade-point average will be calculated on the basis of information provided at the time application to UTA is made and will not be automatically recalculated upon completion of on-going work or award of a degree.

## Special Admissions Programs

### Facilitated Admission of Outstanding UT Arlington Undergraduates

Upon the recommendation of the Graduate Advisor, outstanding graduates of The University of Texas at Arlington may be admitted to a master's degree program or B.S. to Ph.D. track by facilitated admission. To qualify, the student must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than one academic year prior to the semester for which admission to a graduate program is sought. A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, facilitated admission is conditional upon successful completion of the bachelor's degree.
2. The student's grade-point average must equal or exceed 3.5 in each of two calculations:
  - a. the grade-point average in the last 60 hours of study as calculated in Graduate Admissions for admission purposes;
  - b. all work completed at UT Arlington to date.

Students who qualify for facilitated admission will be admitted directly to graduate school without completing the application for admission, submitting an application evaluation charge or taking the GRE or GMAT. Students who believe they may qualify for this program should contact the appropriate Graduate Advisor. Some programs may require a higher grade-point average to qualify. Not all graduate programs participate in Facilitated Admission of Outstanding Undergraduates.

### Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates may qualify for waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.
2. The student's UT Arlington grade-point average must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study as calculated for admission by Graduate Admissions; (b) in all undergraduate coursework completed at UT Arlington.

Applicants qualifying for waiver of the GRE who do not qualify for facilitated admission, must comply with all other requirements for admission, i.e., submitting the application for admission, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waiver must be recommended by the Graduate Advisor at the time of admission. The waiver of GRE program applies to applicants for master's degree programs only. Some programs may require higher grade-point averages to qualify. Not all graduate programs participate in the GRE waiver program.

### Fast Track

The Fast Track program is designed to encourage gifted UT Arlington undergraduate students to complete a master's degree at UT Arlington, by enabling them to complete their undergraduate studies without delay and reducing the time and the number of additional courses needed to complete a master's degree. It is available in some graduate programs to outstanding UT Arlington undergraduate students and admission to these programs is highly selective. Participating undergraduate students use a set of courses specified by their graduate program to satisfy both undergraduate bachelor degree and graduate master's degree requirements. Students must formally apply to and be accepted as a Fast Track student by a participating graduate program to receive the full benefits of the program. Admitted students going on to complete all program requirements successfully will be automatically admissible to the associated master's program when they receive their bachelor's degree. They will not have to submit the formal application for admission to Graduate Admissions, pay an application evaluation fee, or take the GRE. Students who do not complete the Fast Track program may apply for admission per regular means but must take all required tests and pay all required fees. Admission in such cases is not automatic and will be based on the published admission requirements of the program applied to all regular applicants. Not all programs offer a Fast Track option. Interested students should consult with their intended program's graduate advisor prior to their senior year for detailed information regarding requirements and application procedures.

### Non-Degree Seeking (Special) Applicants and Graduate Certificate Applicants

A person holding a bachelor's degree from a regionally accredited U.S. institution or its foreign equivalent wishing to take graduate courses at The University of Texas at Arlington but not planning to pursue a graduate degree may be admitted as a special non-degree seeking student or graduate certificate student with the approval of Graduate Admissions and concurrence of the Committee on Graduate Studies in the area in which the applicant wishes to study. In most cases, admission as a special non-degree seeking student is granted only for the purpose of participating in special graduate course offerings, or for taking courses to be transferred to another institution. A student who has been denied admission to or been dismissed from graduate school will not be permitted to enroll as a special non-degree seeking or graduate certificate student.

Before submitting an application for admission, an applicant for special non-degree seeking student or graduate certificate should consult with the Graduate Advisor in the department or program in which the graduate course or graduate certificate is offered. Applicants may complete our application online. In addition to the application form applicants must submit an official transcript of previous college work showing evidence of an undergraduate degree and, if applicable, a graduate degree. Special non-degree seeking student admission status is granted for the semester for which the application is submitted. Further enrollment as a special non-degree seeking student must be approved on a semester-by-semester basis. Graduate certificate enrollment is limited to the courses and length of time required to complete the graduate certificate program. Special non-degree students and graduate certificates may not hold graduate



assistantships or enroll in research, thesis, internship or dissertation courses.

Up to 12 graduate level (5000 and above) semester credit hours earned as a special non-degree seeking student may be applied to a graduate degree program, subject to the policies on grades and graduate credit described in the General Information and Regulations section of this catalog. Review and approval of the appropriate Committee on Graduate Studies and the approval of Graduate Admissions are required. All grades in courses taken as a special non-degree seeking student and graduate certificate status will be considered in computing a student's graduate grade-point average.

A former or currently enrolled special student or graduate certificate student wishing to apply for admission to a graduate degree program must submit a graduate admissions application online, all supporting documents listed in the Admission section of this catalog, and the appropriate non-refundable application evaluation charge. Admission as a special student or graduate certificate student in no way guarantees subsequent admission into a graduate program in graduate school.

**NOTE:** Immigration regulations do not generally permit international students to study as special non-degree seeking or certificate students. If you are an international student, please contact Graduate Admissions before submitting an application so that eligibility to apply as a special non-degree seeking or graduate certificate student can be determined.

### Changing Starting Semester, Program, or Degree Level Prior to Admission at UT Arlington

Applicants wishing to change the semester in which they plan to start study at UT Arlington, programs in which they wish to be considered for admission, or degree levels for which they initially applied, may request that their application be reprocessed for possible admission by completing the form "Reactivate an Admissions Application". This form is completed online at our Web site <http://grad.uta.edu>. Applicants may submit only one "Reactivate an Admissions Application" at a time. The initial admission decision does not automatically apply when an applicant requests these types of changes to their application. When a request is received, the appropriate non-refundable U.S. Citizen, Resident Alien or International Student application evaluation charge must be paid in order to begin processing the request. Once the fee is paid the application is thoroughly re-evaluated to ensure it is complete and current and a new admission decision will be made.

### Change of Graduate Major, Program, or Degree Level for Current Students

Students wishing to change graduate major, program or degree level (master's or doctoral classification) from the one in which they are enrolled currently or in which they were enrolled during the most recent semester at UT Arlington, must initiate the change by completing the "Change of Program or Degree Level" form online. Students may submit only one "Change of Program or Degree Level" form at a time. Additional forms will not be processed until a final decision on any prior request has been made. Students intending to change majors should consult the Graduate Advisor of the new program regarding program admission and degree requirements before completing this form. Similarly, students wishing to change degree level should submit the request after discussing the matter with the appropriate Graduate Advisor.

Students wishing to change from one program to a dual degree program must complete the "Change of Program or Degree Level" form online.

The "Change of Program or Degree Level" form is completed online at our Web site <http://grad.uta.edu/students/forms/>.

### Readmission

A student previously enrolled in graduate school at The University of Texas at Arlington, wishing to resume graduate work after an absence of a fall or spring semester or longer (summer excluded) must submit an "Application for Readmission" form online and pay the required non-refundable application evaluation charge. This rule does not apply to a student who withdraws with an Approved Leave of Absence or to a student who withdraws from the university to perform active military service (not including Texas National Guard training exercise). A student returning from an Approved Leave of Absence as scheduled will be automatically readmitted and will not be required to submit an application or pay an application fee. A student withdrawing due to military service will not have to reapply for admission and will be readmitted upon a request made within one year of being released from active military services and may be eligible for the same financial assistance provided before the student's withdrawal (TEC, Section 51.9242) .

The "Application for Readmission" is completed online at our Web site <http://grad.uta.edu>. Students may submit only one "Application for Readmission" at a time. A \$30.00 application charge is required of all U.S. Citizen and U.S. Resident Alien applicants who have attempted or completed all of their college or university work at institutions located in the United States. A \$60 evaluation charge is required of all U.S. Citizen and U.S. Resident Alien applicants who have attempted or completed some or all of their coursework at an institution located outside of the United States. A \$60 evaluation charge is required of all International students. Payment must be received before processing can begin. An application evaluation

charge is required with each readmission application form submitted. International students and U.S. Resident Alien students should submit this form and pay the required non-refundable evaluation charge 120 days prior to their expected semester of enrollment, and U.S. Citizen students 90 days prior to their expected date of enrollment.

A former student wishing to apply for a dual degree program must complete the "Application for Readmission" form online.

An applicant for readmission should consult with the Graduate Advisor of the program, or the Graduate Advisors of the dual degree programs, before submitting the readmission form and fee to Graduate Admissions. This is particularly important when requesting readmission to a new program or requesting readmission to a dual degree program.

A student who has been dismissed from graduate school for failure to meet the terms of academic probation, provisional admission or other conditions may be readmitted for further graduate study in the same or in a different program or dual degree program only if a Petition to the Graduate Faculty has been approved by the appropriate Committee on Graduate Studies and the Office of Graduate Studies. The Petition to the Graduate Faculty form is available online from the Graduate School Web page at <http://grad.uta.edu>.

An applicant for readmission who has enrolled at other institutions during their absence from UT Arlington (including those in UT Arlington concurrent enrollment) must submit official transcripts showing such coursework to Graduate Admissions.

## Graduate Student Advisement

After being admitted, students should confer (preferably in person) with the Graduate Advisor of their major area to become familiar with specific departmental regulations, particularly those that require additional examinations upon entrance, as well as the details of registration, course selection and other procedures. It is important that a student wishing to take courses for graduate credit consult the appropriate Graduate Advisor before registering, as each student's course of study must be approved by the Graduate Advisor, the Committee on Graduate Studies, the student's supervising committee and the Office of Admissions, Records, and Registration. Failure to consult with the Graduate Advisor could result in the student's enrolling for courses that are not applicable toward meeting graduate degree requirements. Graduate Advisor contact information is available on our Web site <http://grad.uta.edu>.

## Registration

Students should be familiar with all dates on the calendars printed in this catalog or online at [www.uta.edu/uta/acadcal](http://www.uta.edu/uta/acadcal). UT Arlington offers Web registration through MyMav, the University student information system. Specific registration instructions, time tables, class schedules and other information to assist students with registration is published by Admissions, Records, and Registration and is accessible at <http://www.uta.edu> by selecting the Academics link. International applicants should also consult an International Student Advisor in the UT Arlington Office of International Education for registration regulations.

## Restrictions on Admission

### General Restriction

The University of Texas at Arlington may limit the number of students accepted in a program if the number of applicants exceeds the resources needed to support the educational objectives of that program.

### Faculty Members

Members of the UT Arlington faculty holding an appointment at the rank of instructor or above may not pursue a graduate degree at the University.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)







# 2013-2014 Graduate Catalog

- [Home](#)
- [Degree Requirements](#)
- [Fields of Study](#)
- [Admissions Requirements & Procedures](#)
- [General Information & Regulations](#)
- [Board of Regents](#)
- [Graduate School](#)
- [Directory of UT Arlington Offices](#)
- [Regulations](#)
- [Tuition & Fees](#)
- [Financial Aid](#)
- [Student Services](#)
- [Graduate Calendar](#)
- [Graduate Faculty](#)
- [Table of Contents](#)
- [Index](#)

## General Information & Regulations

The University of Texas at Arlington

### University Officers

- [Executive Officers](#)
- [Administrative Officers of Academic Units](#)
- [Graduate School Officers](#)

### [University Profile](#)

### [Mission Statement](#)

### [Accreditation](#)

### [Government](#)

### [Equal Opportunity Policy](#)

### [Sexual Harassment, Sexual Misconduct and Consensual Relationships Policy](#)

### [UT Arlington/Fort Worth Center](#)

### [Center for Distance Education](#)

## University Officers

### Executive Officers

Dr. Vistasp M. Karbhari, President  
Ronald L. Eisenbaumer, Ph.D., Provost and Vice President for Academic Affairs  
Carolyn L. Cason, Ph.D., Interim Vice President for Research and Federal Relations  
John D. Hall, B.B.A., Vice President for Administration and Campus Operations  
Jean M. Hood, B.S., Vice President for Human Resources  
Frank Lamas, Ph.D., Vice President for Student Affairs  
James C. Lewis, M.B.A., Vice President for Development  
Jerry Lewis, B.S., Vice President for Communications  
Maurice Leatherbury, Ph.D., Vice President for Information Technology  
Kelly Davis, B.B.A., Vice President for Business Affairs and Controller

### Administrative Officers of Academic Units

Barbara Becker, Ph.D., Dean, School of Urban and Public Affairs  
Jean-Pierre Bardet, Ph.D., Dean, College of Engineering  
Philip Cohen, Ph.D., Dean of Graduate Studies  
Donald F. Gatzke, M.Arch., Dean, School of Architecture  
Jeanne Gerlach, Ph.D., Ed.D., Dean, College of Education  
Daniel D. Himarios, Ph.D., Dean, College of Business

Pamela Jansma, Ph.D., Dean, College of Science  
Michael Moore, Ph.D., Senior Vice Provost and Dean, Undergraduate Studies  
Karl Petruso, Ph.D., Dean, Honors College  
Scott D. Ryan, Ph.D., Dean, School of Social Work  
Elizabeth Poster, Ph.D., Dean, School of Nursing  
Rebeccal Bichel, M.L.I.S., Dean, Library  
Beth S. Wright, Ph.D., Dean, College of Liberal Arts

### Graduate School Officers

Raymond L. Jackson, Ph.D., Graduate Studies

## University Profile

The University of Texas at Arlington is located in the heart of the Dallas/Fort Worth Metroplex, one of the fastest growing areas in the nation. UT Arlington is a Carnegie doctoral-extensive teaching, research and public service university offering an array of baccalaureate, master's, doctoral and professional degrees. A modern 392-acre campus a few blocks from downtown Arlington offers easy access to museums, concerts, ballet, theater, family recreation, professional sports and other amenities.

Founded in 1895 as Arlington College, a private liberal arts institution, UT Arlington has undergone a succession of names, ownerships and missions. The University was elevated to senior college status in 1959 and was transferred from the Texas A&M System to The University of Texas System in 1965. Its final name change came in 1967, when it became The University of Texas at Arlington.

The University of Texas at Arlington has an enrollment of about 34,000 students. The student body is diverse with students representing almost every state in the United States and more than 100 countries. The University's academic units include the School of Architecture, College of Business, College of Education and Health Professions, College of Engineering, Honors College, College of Liberal Arts, College of Nursing, College of Science, School of Social Work, and School of Urban and Public Affairs. Additionally, the Graduate School oversees the administration of academic programs beyond the baccalaureate level.

In response to societal needs, UT Arlington has evolved into a renowned university within the state and one of emerging position nationally and internationally. The University's history of achievement can be attributed to its outstanding faculty; a strong student body; a record of success by graduates in their respective fields; and the growth of the Dallas/Fort Worth area as a nationally and internationally significant metropolis.

## Mission Statement

The University of Texas at Arlington is a comprehensive research, teaching, and public service institution whose mission is the advancement of knowledge and the pursuit of excellence. The University is committed to the promotion of lifelong learning through its academic and continuing education programs and to the formation of good citizenship through its community service learning programs. The diverse student body shares a wide range of cultural values and the University community fosters unity of purpose and cultivates mutual respect.

As a University, we affirm our commitment to the following objectives:

- The University is committed to comprehensive programs of academic research. This research effort requires attracting and retaining scholars who promote a culture of intellectual curiosity, rigorous inquiry, and high academic standards among their fellow faculty and the students they teach.
- The University prepares students for full, productive lives and informed and active citizenship. To that end, we have developed undergraduate and graduate curricula and classroom practices that engage students actively in the learning process. Outside the classroom a wide range of student organizations and activities contribute to the learning environment. Our service learning program offers students the opportunity to supplement

their academic study with internships in a variety of community settings, testing their skills and aptitudes and challenging their values. State-of-the-art teaching technologies, distance education, and off-site instruction afford access to off-campus as well as traditional students. Non-degree certificate and continuing education programs offer practical, aesthetic, and intellectually stimulating opportunities for community learners, for individual courses or a sustained program of study.

- The mission of a university can be achieved only when its students, faculty, staff, and administrators value and promote free expression in an atmosphere of tolerance, responsibility, and trust. The University regards these attributes as prerequisites for any community of learners and vigilantly strives to maintain them.
- Mindful of its role as a resource to the community, locally, nationally, and internationally, the University continually seeks partnerships with public and private concerns in order to advance the economic, social, and cultural welfare of its constituencies. We serve the needs of the North Texas community by sponsoring public lectures and academic symposia, as well as artistic, musical, and dramatic productions.

## Accreditation

The University of Texas at Arlington is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, master's and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation status of The University of Texas at Arlington.

In addition, many of UT Arlington's academic departments and schools have received national accreditation from specific agencies. These accreditations are detailed under the individual listings for departments and schools in this catalog.

Since 1993, students and faculty of The University of Texas at Arlington have benefited from its membership in Oak Ridge Associated Universities. ORAU is a consortium of 98 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of under-represented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at [www.ornl.gov/orise/educ.htm](http://www.ornl.gov/orise/educ.htm), or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.

For more information about ORAU and its programs, contact:

Ronald L. Elsenbaumer  
Vice President for Research  
ORAU Councilor for The University of Texas at Arlington

Monnie E. Champion

ORAU Corporate Secretary (865.576.3306); or  
Visit the ORAU home page ([www.orau.org](http://www.orau.org))

## Government

The government of UT Arlington is vested in a nine-member Board of Regents of The University of Texas System, nominated by the governor and approved by the Senate. The Office of the Chancellor is the chief administrative office of The University of Texas System and is located in Austin. The chief administrative officer of UT Arlington is the University president, under authority of the Office of the Chancellor of the UT System and the Board of Regents. A complete statement of the authority and duties of the Regents and of the several officers, together with an account of the organization of the system, is published in the Rules and Regulations of the Board of Regents of The University of Texas System.

## Equal Opportunity Policy

The University of Texas at Arlington complies with the Equal Pay Act of 1963, Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246, the Age Discrimination in Employment Act of 1967, Title IX of the Educational Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, 1990, the Vietnam Era Veterans Readjustment Act of 1974, the Texas Commission on Human Rights Act and the Rules and Regulations of the Board of Regents of The University of Texas System. It is the policy of The University of Texas at Arlington that to the extent provided by these applicable laws no person shall, on the basis of race, color, national origin, religion, age, sex, disabilities or veteran status, be denied employment or admission, be excluded from participation in, be denied the benefits of or subject to discrimination under, any program or activity that it sponsors or conducts. It is also the University's policy to maintain an environment free from discrimination on the basis of sexual orientation.

Inquiries concerning the application of this policy and complaints of discrimination should be directed to the Office of Equal Opportunity and Affirmative Action, 710 S. Davis Drive, Office and Classroom Building (OCB), Room 103, 817.272.2106. E-mail: [eoaa@uta.edu](mailto:eoaa@uta.edu). Web site: [www.uta.edu/eoaa](http://www.uta.edu/eoaa).

## Sexual Harassment, Sexual Misconduct and Consensual Relationships Policy

The University of Texas at Arlington is committed to an academic and working environment free from inappropriate conduct of a sexual nature. Sexual harassment is a prohibited practice under Title VII of the Civil Rights Act of 1964 for employees as amended by the Equal Employment Opportunity Act of 1973, and the Texas Commission on Human Rights Act for students under Title IX of the Education Amendments of 1972. Sexual harassment, sexual misconduct and consensual relationships between faculty members and the students they currently teach or supervise, and between employees in positions of authority and their subordinates, are prohibited under University policy and are sanctionable.

Sexual harassment includes, but is not limited to, unwelcome sexual advances, requests for sexual favors, insults, sexual threats, innuendoes and other verbal or physical conduct of a sexual nature under circumstances where: 1) submission to such conduct is made either explicitly or implicitly a term or condition of employment (or a student's status in a course, program or activity); 2) submission to or rejection of such conduct by an employee is used as a basis for employment decisions affecting the individual (or in the case of a student, it is used as a basis for academic or other decisions affecting a student); or 3) such conduct has the purpose or effect of unreasonably interfering with the individual's employment (or the student's educational experience), or of creating an intimidating, hostile or offensive academic environment.

Inquiries concerning the application of this policy and complaints of sexual harassment should be directed to the Office of Equal Opportunity and Affirmative Action, 710 S. Davis Drive, Office and Classroom Building (OCB), Room 103, 817.272.2106. Email: [eoaa@uta.edu](mailto:eoaa@uta.edu). For policy and additional information visit Web site: [www.uta.edu/eoaa](http://www.uta.edu/eoaa).

## UT Arlington/Fort Worth Center

UT Arlington/Fort Worth Center strives to serve the Fort Worth community with excellence in accessible, state-of-the-art, and affordable higher education. The Fort Worth Center is committed to:

- meeting the lifelong learning needs of working professionals
- offering graduate programs in convenient times and formats including evenings and weekends
- having the vision and flexibility to capitalize on global opportunities that address the economic development needs of the community
- UT Arlington/Fort Worth Center offers master degree programs tailored for working adults. The Executive MBA cohort program is designed for upper-level executives and can be completed in 15 months. The cohort-based MBA program starts every fall and spring semester and takes 24 months to complete. The cohort-based Master of Science in Healthcare Administration spans 24 months. The Scholars of Practice (M.Ed.) program is uniquely designed for graduate students seeking their Master of Education degree with Texas principal certification. This field-based administrator preparation experience spans five consecutive university semesters over an 18-month period. The Master of Science in Systems Engineering is a 36-hour program offered by the College of Engineering that consists of classroom and online instruction. The program takes 24 months to complete. The Master of Science in Information Systems provides managers of various functional business areas the necessary knowledge to effectively interface with the Information Technology organization and can be completed in just 17 months. The School of Urban and Public Affairs offers a Master of Public Administration cohort at the Fort Worth Center. The degree can be completed in 24 months and is focused on Urban Management. The Master of Arts in Criminology and Criminal Justice cohort program at the Center can be completed in 24 months. The Master of Science in Social Work is now being offered at the Fort Worth Center, which can be completed in 24 months. The Master of Science in Real Estate program accepts students every semester and can be completed in as little as one year. A sustainability concentration is offered in the MS in Real Estate program and is available in Dallas and Fort Worth. These UT Arlington/Fort Worth Center graduate programs are the highest quality and most affordable of their kind in the Tarrant County region.
- In addition, UT Arlington/Fort Worth Center provides select non-credit professional development and continuing education courses in downtown Fort Worth. The Center's Gallery 76102 is a community art space exhibiting contemporary work from local artists. Since its opening it has become an integral part of the Fort Worth art community.
- UT Arlington/Fort Worth Center has an excellent central location in downtown Fort Worth at 1401 Jones Street, Fort Worth, Texas 76102. Please access the UT Arlington/Fort Worth Center's Web site, [www.uta.edu/fortworth](http://www.uta.edu/fortworth), for more information. The main information phone number is 817.272.5988.

### Center for Distance Education

The Center for Distance Education serves as an information and coordination site for distributed education efforts at UT Arlington. University undergraduate and graduate courses and degree programs are delivered off-campus in numerous electronic formats, including videotape/DVD, videoconferencing and via the Internet. Center staff promote and support the use of both established and emerging digital tools for teaching and learning.

For more information on the Center for Distance Education, located at 201A E. Abram St., call 817.272.5727 or 888-UTA-DIST. Fax: 817-272-5728. E-mail: [info@distance.uta.edu](mailto:info@distance.uta.edu). Web site: <http://distance.uta.edu>.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



RELATED LINKS

[Office of Records and Registration](#)

[Final Exam Schedule](#)

[Registration Timetable](#)

[Commencement](#)

Official University Academic Calendar

SUMMER 1ST FIVE WEEKS 2018

April 2 · Registration Begins for Summer Term - 1st Five Week Session

June 3 · Registration Ends for Summer Term - 1st Five Week Session

June 4 · First day of classes

June 4 · Late registration

June 5 · Late registration

June 7 · Census date

June 25 · Last day to drop classes; submit requests to advisor prior to 4:00 pm

July 4 · Independence Day holiday

July 5 · Last day of classes

July 9 · Final exams

MORE ACADEMIC CALENDARS

- [Summer 1st Five Weeks 2018](#)
- [Summer 11 Weeks 2018](#)
- [Summer 2nd Five Weeks 2018](#)
- [Summer 14 Weeks 2018](#)
- [Fall 2018](#)
- [Winter 2018/2019](#)
- [Spring 2019](#)
- [Summer Interession 2019](#)

[All sessions »](#)

SUBSCRIBE

Import the academic calendar into any of these products:

- ➔ [Outlook](#)
- ➔ [Apple Calendar](#)
- ➔ [Google Calendar](#)



© 2018 The University of Texas at Arlington  
701 S. Nedderman Drive • Arlington, TX 76019 • 817-272-2011

Careers | Contact Us | Emergency Preparedness | Site Policies | Legal and Privacy Notice | A-Z Index  
Nondiscrimination and Title IX | Mental Health Resources | Report Sexual Misconduct  
Institutional Resume | UT System | State of Texas | Statewide Search | Homeland Security | Report Fraud

About Us  
Admissions  
Academics  
Research

Student Life  
Giving  
Athletics  
News Center





# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Graduate Faculty

Sort this listing by [Name](#) | [School & Department](#).

- [School of Architecture](#)
- [College of Business](#)
- [College of Education and Health Professions](#)
- [College of Engineering](#)
- [College of Liberal Arts](#)
- [College of Nursing](#)
- [College of Science](#)
- [School of Social Work](#)
- [School of Urban and Public Affairs](#)

### School of Architecture

#### Architecture

##### Associate Dean

##### [Jones, David](#)

Start Year: 1970  
B.Arch., University of Oklahoma, 1970

##### Professor

##### [Baum, Edward](#)

Start Year: 1987  
M.Arch., Harvard University, 1964  
A.B., Harvard College, 1960

##### [Hamilton, Robert](#)

Start Year: 1973  
M.Arch., Massachusetts Institute of Technology, 1972  
B.Arch., Carnegie-Mellon University, 1969

##### [Kuhner, Craig](#)

Start Year: 1978  
M.Arch., 1970  
B.A., University of Pennsylvania, 1964

##### [McDermott, John](#)

Start Year: 1982  
M.A., University of Notre Dame, 1976  
B.Arch., University of Notre Dame, 1966

##### [Mehta, Madan](#)

Start Year: 1985  
Ph.D., University of Liverpool, 1974  
M.Bldg.S., University of Sydney, 1967



B.Arch., University of Roorkee, India, 1961

### **Associate Professor**

#### **Gintole, George**

Start Year: 1985  
M.Arch., Princeton University, 1978  
B.Arch., The Cooper Union, 1976

#### **Hopman, David**

Start Year: 2004  
M.L.A., University of Texas Arlington, 1998  
M.M., Southern Methodist University, 1982  
B.M., University of Memphis, 1980

#### **Maruszczak, John**

Start Year: 1982  
M.Arch., Princeton University, 1980  
B.Arch., The Cooper Union, 1975

#### **Quevedo, Steven**

Start Year: 1991  
M.Arch., University of Texas at Arlington, 1989  
B.S., University of Texas at Arlington, 1985

### **Senior Lecturer**

#### **Boswell, Bill**

Start Year: 1975  
M.Arch. and Urban Design, University of Colorado, 1972  
B.Arch., The University of Texas at Austin, 1969

### **Lecturer**

#### **Bass, Ogden**

Start Year: 1996  
M.S., Texas A&M; University, 1986  
M.U.P., Texas A&M; University, 1981  
B.S., Texas A&M; University, 1979

## **Landscape Architecture**

### **Associate Professor**

#### **Taylor, Pat**

Start Year: 1992  
Ph.D., The University of Texas at Austin, 1983  
M.S., Texas Tech University, 1969  
B.S., Texas Tech University, 1967

## **College of Business**

### **Accounting**

#### **Professor**

#### **Hall, Thomas**

Start Year: 1981  
Ph.D., Oklahoma State University, 1981  
M.P.A., The University of Texas at Arlington, 1975  
B.B.A., The University of Texas at Arlington, 1974

#### **Ho, Li-Chin Jennifer**

Start Year: 1990  
Ph.D., The University of Texas at Austin, 1990  
M.P.A., The University of Texas at Austin, 1984  
B.B.A., National Taiwan University, 1981

#### **McConnell, Donald**

Start Year: 1978  
Ph.D., University of North Texas, 1981

M.S., Oklahoma State University, 1971  
B.S., Oklahoma State University, 1970

**Taylor, Martin**

Start Year: 1988  
Ph.D., The University of Texas at Austin, 1974  
M.B.A., The University of Texas at Austin, 1970  
B.Comm., University of Cape Town, 1966

**Tsay, Jeffrey**

Start Year: 1974  
Ph.D., University of Missouri, 1973  
M.A., University of Missouri, 1969  
B.B.A., National Chengchi University, 1966

**Associate Professor**

**Hall, Bethane**

Start Year: 1985  
Ph.D., University of North Texas, 1987  
M.P.A., The University of Texas at Arlington, 1978  
B.S., Texas A&M; University, 1975

**Mark, Richard**

Start Year: 1985  
L.L.M., University of Denver, 1977  
J.D., University of Colorado, 1974  
B.S., University of Colorado, 1971

**Skantz, Terrance**

Ph.D., Oklahoma State University, 1979  
M.S., University of Southern Miss., 1973  
B.S., University of Southern Miss., 1972

**Subramaniam, Chandra**

Start Year: 2003  
Ph.D., University of Minnesota, 1993  
B.Acct., University of Minnesota, 1984  
M.B.A., University of Minnesota, 1984  
B.Sc., University of Malaya, 1978

**Assistant Professor**

**Efendi, Jap**

Start Year: 2007  
Ph.D., Texas A&M; University, 2004  
M.S. Tax Accounting, Texas A&M; University, 1996  
B.B.A., Texas A&M; University, 1995

**Winterbotham, Glyn**

Start Year: 2007  
Ph.D., University of Oklahoma, 2007  
B.A., Oklahoma Christian University, 1999

**Assistant Adjunct Professor**

**Henderson, Sandra**

Ph.D., Auburn University, 2002  
M.Acc., Florida State University, 1993  
B.S., Albany State University, 1991

**Senior Lecturer**

**Repsis, John**

Start Year: 1987  
J.D., Southern Methodist University, 1979  
M.B.A., Southern Methodist University, 1979  
M.P.A., University of Texas at Arlington, 1979  
B.A., Northwestern University, 1975

**Lecturer**

**Andrews, Carly**

M.B.A., University of Texas at Arlington, 2001  
B.B.A., Baylor University, 1997

## Business Administration

### Assistant Dean

#### Mack, David

Start Year: 1997  
Ph.D., University of Texas at Arlington, 2000  
M.B.A., DePaul University, 1993  
B.S., St. John Fisher College, 1983

### Coordinator of International Programs

#### Chin, Pui-Ying

### Director

#### McGee, Melanie

### EMBA Executive Director

#### Ellis, James

### Associate Professor

#### Prater, Edmund

Start Year: 2001  
Ph.D., Georgia Institute of Technology, 1999  
M.S., Georgia Institute of Technology, 1996  
M.S., Georgia Institute of Technology, 1988  
B.S., Tennessee Technological University, 1986

## Economics

### Professor

#### Crowder, William

Start Year: 1992  
Ph.D., Arizona State University, 1992  
B.S., Arizona State University, 1987

#### Himarios, Daniel

Start Year: 1983  
Ph.D., Virginia Polytechnic Institute and State University, 1984  
M.A., Virginia Polytechnic Institute and State University, 1980  
B.A., National & Kapodistrian University of Athens, Greece, 1978

#### Meiners, Roger

Start Year: 1993  
J.D., University of Miami, 1978  
Ph.D., Virginia Polytechnic Institute, 1976  
M.A., University of Arizona, 1972  
B.A., Washington State University, 1970

#### Ward, Michael

Start Year: 2002  
Ph.D., University of Chicago, 1993  
M.A., University of Chicago, 1986  
B.A., University of California, Los Angeles, 1983

### Associate Professor

#### Choi, Chi Young

Ph.D., Ohio State University, 2000  
M.A., Ohio State University, 1996  
B.A., Kyungpook National University, Korea, 1990

#### Smallwood, Aaron

Start Year: 2006

Ph.D., Florida State University, 2001  
M.S., Florida State University, 2000  
B.S., Florida State University, 1995

**Yasar, Mahmut**

Start Year: 2007  
Ph.D., University of Illinois at Urbana-Champaign, 2002  
M.B.A., University of Illinois at Urbana-Champaign, 1997  
M.S.B.A., University of Illinois at Urbana-Champaign, 1996  
B.A., Ankara University, 1992

**Assistant Professor**

**Price, Joshua**

Ph.D., Cornell University, 2010  
M.A., Cornell University, 2009  
M.S., Cornell University, 2007  
B.A., Brigham Young University, 2005

**Spivey, Christy**

Ph.D., The University of Texas at Austin, 2006  
B.Ss., Tulane University, 1998

**Visiting Assistant Professor**

**Mostashari, Shalah**

Start Year: 2012  
Ph.D., University of Texas at Austin, 2010  
M.S., University of Texas at Austin, 2002  
B.A., Hollins University, 1992

**Clinical Professor**

**Himarios, Jane**

Start Year: 1985  
Ph.D., Virginia Polytechnic Institute & State University, 1988  
M.A., Virginia Polytechnic Institute & State University, 1981  
B.A., Winthrop College, 1979

**Associate Clinical Professor**

**Isengildina, Olga**

Start Year: 2012  
Ph.D., Mississippi State University, 2000  
M.S., Mississippi State University, 1996  
B.A., Tashkent State University, 1993

**Wunder, Timothy**

Ph.D., Colorado State University, 2003  
M.A., Colorado State University, 1998  
B.A., Western Washington University, 1993

**Finance and Real Estate**

**Professor**

**Diltz, John David**

Start Year: 1987  
Ph.D., University of Illinois, 1980  
M.S., University of Illinois, 1978  
B.S., Purdue University, 1976

**Associate Professor**

**Hayunga, Darren**

Start Year: 2006  
Ph.D., Louisiana State University, 2006  
M.B.A., The College of William and Mary, 1997  
B.A., Western Illinois University, 1988

**Sabherwal, Sanjiv**

Start Year: 2004

Ph.D., Georgia Institute of Technology, 2000  
M.B.A., University of Miami, 1990  
B.T., Indian Institute of Technology, New Delhi, 1987

**Sarkar, Salil**

Start Year: 1997  
Ph.D., Louisiana State University, 1991  
M.B.A., Northeast Louisiana University, 1987  
B.S., Indian Institute of Technology, 1977

**Assistant Professor**

**Adams, John**

Start Year: 2010  
Ph.D., Texas Tech, 2005

**Gormus, Necmettin**

Start Year: 2012  
Ph.D., UTA at Arlington, 2012  
M.S., Texas Tech University, 2004  
B.S., Texas Tech University, 1999

**Narayanasamy, Arun**

Start Year: 2012  
Ph.D., UTA at Arlington, 2012  
M.S., UTA of Arlington, 2007  
B.S., University of Madras India, 1999

**Assistant Adjunct Professor**

**Lowrance, Daniel**

Ph.D., Texas A&M; University, 2002  
M.B.A., The University of Texas at Arlington, 1997  
B.B.A., The University of Texas at Arlington, 1995

**Professor Emeritus**

**Apilado, Vincent**

Start Year: 1980  
Ph.D., University of Michigan, 1970  
M.B.A., University of Oregon, 1966  
B.S., University of Portland, 1959

**Clinical Professor**

**Forgey, Fred**

Start Year: 2009  
Ph.D., Texas Tech University, 1992  
M.B.A., University of North Texas, 1989  
B.B.A., University of Texas at Arlington, 1988

**Lecturer**

**Schwemer, Lee**

Start Year: 1989  
J.D., Texas Tech University School of Law, 1972  
B.B.A., University of Texas at Arlington, 1970

**Health Care Administration**

**Director**

**Wilhite, Demetria**

**Clinical Professor**

**West, Mike**

Start Year: 2002  
Ed.D., Nova Southeastern University, 1987  
M.S. Economics, University of North Texas, 1977  
B.S. Psychology, University of North Texas, 1970

## Information Systems & Operations Management

### Professor

#### Baker, Revenor

Start Year: 1972  
Ph.D., Texas A&M; University, 1971  
B.A., The University of Texas at Austin, 1964

#### Eakin, Mark

Start Year: 1980  
Ph.D., Texas A&M; University, 1980  
M.S., Texas A&M; University, 1977  
B.S., Tarleton State University, 1972

#### Frazier, Gregory

Start Year: 1997  
Ph.D., Texas A&M; University, 1989  
M.B.A., Texas A&M; University, 1985  
B.S., Texas A&M; University, 1984

#### Mahapatra, Radha

Start Year: 1998  
Ph.D., Texas A&M; University, 1994  
P.G.D.M., Indian Institute of Management, 1986  
B.S., Regional Engineering College, India, 1983

#### Raja, M K

Start Year: 1981  
M.S., University of Houston, 1978  
Ph.D., Texas Tech University, 1971  
M.E., Indian Institute of Technology, 1968  
B.E., University of Madras, 1966

#### Slinkman, Craig

Start Year: 1979  
Ph.D., University of Minnesota, 1984  
M.B.A., Bowling Green University, 1975  
B.S., Bowling Green University, 1974

#### Teng, James

Start Year: 2002  
M.S., University of Illinois, 1971  
Ph.D., University of Minnesota, 1971  
B.A., National Taiwan University, 1966

#### Whiteside, Mary

Start Year: 1984  
Ph.D., Texas Tech University, 1974  
M.S., Texas Tech University, 1966  
B.A., The University of Texas at Austin, 1965

### Associate Professor

#### Cannon, Alan

Start Year: 2003  
Ph.D., Clemson University, 1999  
M.B.A., Clemson University, 1995  
B.A., Clemson University, 1984

#### Nerur, Sridhar

Start Year: 2002  
Ph.D., The University of Texas at Arlington, 1994  
Post Graduate Diploma in Management, Indian Institute of Management, 1988  
B.Eng., Bangalore University, 1983

#### Prater, Edmund

Start Year: 2001  
Ph.D., Georgia Institute of Technology, 1999  
M.S., Georgia Institute of Technology, 1996  
M.S., Georgia Institute of Technology, 1988  
B.S., Tennessee Technological University, 1986

**Sikora, Riyaz**

Start Year: 2002  
Ph.D., University of Illinois at Urbana-Champaign, 1994  
B.Eng., Osmania University, 1987

**Wang, Jingguo**

Start Year: 2007  
Ph.D., State University of New York at Buffalo, 2007  
M.S., State University of New York at Buffalo, 2005  
B.S., Fudan University, 1998

**Zhang, Jie**

Start Year: 2007  
Ph.D., University of Rochester, NY, 2003  
M.S., University of Rochester, NY, 2001  
B.Eng., Tianjin University, China, 1997

**Senior Lecturer**

**Davis, Carolyn**

**Management**

**Professor**

**Bell, Myrtle**

Start Year: 1996  
Ph.D., The University of Texas at Arlington, 1996  
M.B.A., Louisiana State University, 1982  
B.B.A., University of Notre Dame, 1981

**Datta, Deepak**

Start Year: 2004  
B.Tech., Indian Institute of Technology  
M.B.A., Indian Institute of Management  
L.L.B., Calcutta University  
Ph.D., University of Pittsburgh

**Gray, David**

Start Year: 1973  
Ph.D., University of Massachusetts, 1974  
M.A., University of Iowa, 1969  
B.B.A., University of Iowa, 1967

**Quick, Jim**

Start Year: 1977  
Ph.D., University of Houston, 1977  
M.B.A., University of Houston, 1975  
A.B., Colgate University, 1968

**Rasheed, Abdul**

Start Year: 1988  
Ph.D., University of Pittsburgh, 1988  
P.G.D.M., Indian Institute of Management, 1981  
B.S., Kerala University, India, 1972

**Associate Professor**

**Benson, George**

Start Year: 2002  
Ph.D., University of Southern California, 2001  
M.P.P., Georgetown University, 1994  
B.A., Washington and Lee University, 1992

**Casper, Wendy**

Start Year: 2004  
Ph.D., George Mason University, 2000  
M.A., George Mason University, 1996  
B.S., Penn State University, 1989

**Khavul, Susanna**

Start Year: 2006

Ph.D., Boston University, 2001  
B.A., University of California Berkeley, 1991

**Lavelle, James**

Start Year: 2002  
Ph.D., University of Utah, 1999  
B.A., University of Washington, 1989

**Mcfadyen, Margaret**

Ph.D., Texas A&M University - Management, 2000  
M.B.A., Texas Tech University, 1981  
B.B.A., Texas Tech University - Marketing, 1980

**Mcgee, Jeffrey**

Start Year: 1995  
Ph.D., University of Georgia, 1992  
M.B.A., Emporia State University, 1986  
B.B.A., Southwestern College, 1985

**McMahan, Gary**

Start Year: 1996  
Ph.D., Texas A&M; University, 1993  
M.B.A., George Washington University, 1983  
B.S., Oakland University, 1981

**Nordtvedt, Liliana**

Start Year: 2004  
Ph.D., University of Memphis, 2005  
M.B.A., Indiana University of Pennsylvania, 1999  
B.S., Universidad de los Andes, 1998

**Assistant Professor**

**Butts, Marcus**

Ph.D., University of Georgia, 2007  
M.S., University of Georgia, 2003  
B.S., Texas A&M; University, 1998

**Yuan, Feirong**

**Assistant Clinical Professor**

**Baldwin, Janice**

**George, Beverly**

**Michalski, Jeanne**

**Wilensky, Terrance**

**Lecturer**

**Veit, Dennis**

**Marketing**

**Assistant Professor and Graduate Advisor of Marketing Department Ph.D. Program**

**Saini, Ritesh**

Start Year: 2009  
Ph.D., Universtiy of Pennsylvania - Wharton, 2008  
M.S., University of Pennsylvania, 2001  
B.Eng., MN Regional Engineering College, 1995

**Professor**

**Chonko, Lawrence**

Start Year: 2007  
Ph.D., University of Houston, 1978  
B.A., University of Houston, 1975  
B.S., Lehigh University, 1973

**Luo, Xueming**



Start Year: 2004  
D.B.A., Louisiana Tech University, 2003  
B.S., Hunan University, 1993

### **Associate Professor**

#### **Briggs, Elten**

Start Year: 2006  
Ph.D., University of Oklahoma, 2006  
B.A., Ouachita Baptist University, 1997

#### **Freling, Traci**

Start Year: 2007  
Ph.D., Texas A&M; University, 2001  
M.S., Texas A & M University, 1995  
B.S., Texas A & M University, 1992

#### **Grisaffe, Douglas**

Start Year: 2005  
Ph.D., Vanderbilt University, 1989  
M.S., Vanderbilt University, 1987  
B.S., Bowling Green State University, 1984

### **Assistant Professor**

#### **Janakiraman, Narayanan**

Start Year: 2012  
Ph.D., University of Pennsylvania, 2003  
B.A., Pondicherry Central University, 1995  
B.Eng., Government College of Technology, 1993

#### **Jaramillo, J Fernando**

#### **Khare, Adwait**

Start Year: 2010  
Ph.D., University of Pittsburgh, 2003  
M.S., Virginia Tech, 1997  
B.S., Centre for Environmental Planning, 1993  
B.Arch., Visvesvaraya Regional College of Engineering, 1990

#### **Yang, Zhiyong**

Start Year: 2007  
Ph.D., Concordia University, 2007  
B.A., Zhejiang University, 2002  
M.S., Zhejiang University, 1998  
B.S., N.China Electric Power University, 1990

### **Clinical Professor**

#### **Rogers, Robert**

Start Year: 2007  
Ph.D., Business Administration, University of Nebraska, 1979  
M.A., Marketing, University of Nebraska, 1973  
B.A., Latin American Studies, University of Nebraska, 1971

### **Associate Clinical Professor**

#### **Lacefield, Gary**

Start Year: 2002  
Ph.D., Texas A & M University, 1997  
M.A., Dallas Baptist University, 1992  
B.A., Dallas Baptist University, 1991

### **Assistant Clinical Professor**

#### **Richarme, Michael**

Start Year: 2006  
Ph.D., University of Texas at Arlington, 2006  
B.S., University of Pennsylvania, 1989  
M.A., University of Texas at Austin, 1979  
B.A., University of Texas at Arlington, 1977

## College of Education and Health Professions

### Educational Curriculum & Instruction

#### Professor

##### **Cavallo, Ann**

Start Year: 2006  
Ph.D., Syracuse University, 1991  
M.S., Syracuse University, 1988  
B.S., Niagara University, 1981

##### **Crow, Mary**

Ph.D., University of North Texas, 1970  
M.Ed., Texas Christian University, 1967  
B.A., Texas Christian University, 1956

##### **Kribs, Christopher**

Start Year: 1997  
Ph.D., University of Wisconsin at Madison, 1997  
M.S.E.E., Georgia Institute of Technology, 1991  
A.B., Duke University, 1989  
B.S.E.E., Duke University, 1988

##### **Milson, Andrew**

Start Year: 2010  
Ph.D., Univ. of Georgia, 1999  
M.Ed., Univ. of North Texas, 1995  
B.A., Univ. of north Texas, 1993

##### **Rosado, Luis**

Ed.D., Texas A&M; University at Kingsville, 1986  
M.Ed., Boston State College, 1980  
B.A., University of Puerto Rico, 1975

##### **Schwartz, Marc**

Start Year: 2007  
Ed.D., Harvard University, 2000  
M.Ed., University of New Hampshire, 1983  
B.S., University of New Hampshire, 1982

##### **Smith, John**

Start Year: 2008  
Ph.D., University of North Carolina at Chapel Hill, 1987  
M.A., University of Utah, 1980  
B.S., Brigham Young University, 1975

#### Associate Professor

##### **Lee, Joohi**

Ph.D., Indiana State University, 2004  
M.E.D., Duksung Womenas University, 1996  
B.A., Chong Shin University, 1994

##### **Leffingwell, Jon**

Start Year: 1971  
Ph.D., University of North Texas, 1971  
M.Ed., The University of North Texas, 1966  
B.S., The University of North Texas, 1963

##### **Tommerdahl, Jodi**

Start Year: 2010  
Ph.D., La Sorbonne, 2002  
D.E.A., Ecole des Hautes Etudes en Sciences Sociales, 1996  
M.A., University of London, 1994  
B.A., University of Minnesota, 1991

##### **Yoon, Jiyeon**

Start Year: 2012  
Ph.D., Indiana University, 2002  
B.S., Ewha Womens University, Seoul, Korea, 1991

## Assistant Professor

### Amaro-Jimenez, Carla

Start Year: 2008  
Ed.D., University of Cincinnati, 2008  
M.Ed., University of Cincinnati, 2003  
B.S., Universidad Latina de Costa Rica, 2001

### Brown, Amber

Start Year: 2008  
Ed.D., University of North Texas, 2008  
M.S., University of North Texas, 2004  
B.S.E., East Texas Baptist University, 1993

### Hungerford-Kresser, Holly

Start Year: 2008  
Ph.D., University of Texas, 2008  
M.A., University of Texas, 2000  
B.S., Baylor University, 1997

### Malaia, Evguenia

Start Year: 2011  
Ph.D., Purdue University, 2005  
M.S., Chuvash State Pedagogical University, Russia, 2005

### Martin, Leisa

Start Year: 2012  
Ph.D., Univ. of Oklahoma, 2003  
M.S., Florida International Univ., 1999  
B.S., Florida State Univ., 1992

### Pant, Mohan

Start Year: 2012  
Ph.D., Southern Illinois University Carbondale, 2011  
M.S., Southern Illinois University Carbondale, 2006  
M.S., Tribhuvan University Kathmandu, Nepal, 1995

### Pole, Kathryn

Start Year: 2012  
Ph.D., Texas Woman's University, 2006  
M.L.S., University of North Texas, 1982  
B.S., Stephen F. Austin State University, 1980

### Semingson, Peggy

Start Year: 2008  
Ph.D., University of Texas, 2008  
M.Ed., Texas State University, 2004  
B.A., University of California, Santa Barbara, 1996

## Educational Leadership and Policy Studies

### Professor

#### Gerlach, Jeanne

Start Year: 1997  
Ph.D., University of North Texas, 1992  
Ed.D., West Virginia University, 1985  
M.A., West Virginia University, 1979  
B.S., West Virginia State College, 1974

### Associate Professor

#### Ausbrooks, Carrie

Start Year: 2004  
Ph.D., University of North Texas, 1996  
M.Ed., University of North Texas, 1984  
B.B.A., University of North Texas, 1983

#### Hardy, James

Start Year: 2006  
Ph.D., University of North Texas, 1990  
M.Ed., Stephen F. Austin, 1985

B.A., Stephen F Austin, 1981

**Mcclellan, Rhonda**

Ed.D., Oklahoma State University, 2002  
M.A., Oklahoma State University, 1997  
M.Ed., University of Central Oklahoma, 1992

**Wasserman, Lewis**

J.D., St. John's University School of Law, 1984  
Ph.D., Hofstra University, 1974  
M.A., Hofstra University, 1973  
B.A., Hofstra University, 1969

**Assistant Professor**

**Amah, Ifeoma**

Ph.D., University of California, Los Angeles, 2009  
B.A., University of California, Los Angeles, 2002

**Tobolowsky, Barbara**

Start Year: 2009  
Ph.D., University of California, Los Angeles, 2001  
M.A., University of California, Los Angeles, 1998  
M.A., Northwestern University, 1979  
B.S., University of Texas at Austin, 1976

**Assistant Clinical Professor**

**Johnson, Ernest**

Start Year: 1995  
Ed.D., Texas A&M; University, 1992  
M.Ed., The University of Texas at Austin, 1978  
B.A., Texas A&M; University, 1971

**Senior Lecturer**

**Gardner, Kent**

Start Year: 2005  
Ed.D., University of North Texas, 1990  
M.S., Oklahoma State University, 1967  
B.A., Oklahoma City University, 1963

**Lecturer**

**Smith, Harold**

Start Year: 1997  
Ed.D., Columbus University, 2000  
M.S., Eastern New Mexico University, 1967  
B.S., Northeastern Oklahoma State University, 1962

**Special Assistant**

**Caloss, Ronald**

Start Year: 1999  
Ed.D., Nova Southeastern University, 1984  
M.Ed., Our Lady of the Lake University, 1973  
B.A., St. Mary's University, 1966

**Kinesiology**

**Professor**

**Buckwalter, John**

Start Year: 2007  
Ph.D., University of Arkansas, 1995  
M.S., University of Arkansas, 1992  
B.S., Centenary College, 1991

**Fincher, A Louise**

Start Year: 2000  
Ed.D., University of Alabama, 1995  
M.S., Indiana State University, 1991

B.S., Stephen F. Austin State University, 1983

**McKeown, Barry**

Start Year: 1983

Ph.D., University of Illinois, 1979

M.S., South Dakota State University, 1967

B.S., South Dakota State University, 1966

**Ricard, Mark**

Start Year: 2005

Ph.D., Southern Illinois University, 1986

M.A.T., Southeast Missouri State University, 1982

B.S., University of Vermont, 1978

**Associate Professor**

**Mcdonough, Paul**

Start Year: 2007

Ph.D., Florida State University, 2000

M.S., Northeastern University, 1995

B.S., University of Massachusetts, Boston, 1992

**Nelson, Larry**

**Trowbridge, Cynthia**

Start Year: 2004

Ph.D., Brigham Young University, 2004

M.S., Indiana State University, 1994

B.S., University of Colorado, 1992

**Wilson, Judy**

Start Year: 2000

Ph.D., Kent State University, 1984

M.S., California Polytechnic University, 1978

B.S., Pacific Union College, 1972

**Assistant Professor**

**Cacola, Priscila**

**Hargreaves, Jean**

**Keller, David**

Start Year: 2007

Ph.D., University of North Texas Health Science Center at Fort Worth, 2004

M.S., University of North Texas Health Science Center at Fort Worth, 2002

B.S., University of Texas at Arlington, 2000

**Prisby, Rhonda**

Ph.D., Louisiana State University, 2002

M.A., Kent State University, 1997

B.A., Hiram College, 1992

**Ray, Christopher**

Start Year: 2007

Ph.D., University of Georgia, 2004

M.S., University of Tennessee, 1998

B.S., University of Tennessee, 1997

**Resch, Jake**

B.S., South Dakota State University, 2003

**Assistant Clinical Professor**

**Krawietz, Paul**

Start Year: 2006

Ed.D., Texas A & M University – Commerce, 2000

M.A., Eastern Kentucky University, 1992

B.S., Texas Tech University, 1990

**College of Engineering**

## Bioengineering

### Professor

#### Behbehani, Khosrow

Start Year: 1985  
Ph.D., University of Toledo, 1979  
M.S., Georgia Institute of Technology, 1975  
B.S., Louisiana State University, 1973

#### Chuong, Cheng-Jen

Start Year: 1985  
Ph.D., University of California at San Diego, 1981  
M.S., University of California at San Diego, 1977  
B.S., Cheng-Kung University, 1972

#### Liu, Hanli

Start Year: 1996  
Ph.D., Wake Forest University, 1992  
M.S., Wake Forest University, 1990  
B.S., Beijing Normal University, 1983

#### Tang, Liping

Ph.D., University of Minnesota, 1992  
M.S., National Taiwan University, 1988  
B.S., Tunghai University, 1986

### Associate Professor

#### Dave, Digant

Ph.D., Texas A&M; University, 1994  
M.S., Texas A&M; University, 1990

#### Nguyen, Kytai

Ph.D., Rice University, 2000  
B.S., The University of Minnesota, 1995

#### Romero-Ortega, Mario

Start Year: 2011  
Post Doctoral, Univ. Texas Southwestern Medical Ctr, 2002  
Post Doctoral, Univ. Texas Southwestern Medical Ctr, 1999  
Ph.D., Tulane University, 1997  
B.S., Guadalajara University, 1991

### Assistant Professor

#### Alexandrakis, Georgios

Start Year: 2006  
Ph.D., McMaster University, 2000  
M.Sc., McMaster University, 1996  
B.Sc., Oxford Univeristy, 1992

#### Kim, Young-Tae

Start Year: 2011  
Ph.D., University of Utah, 2004  
B.S., Yonsei University, KOREA, 1999

#### Yuan, Baohong

Start Year: 2011  
Ph.D., University of Connecticut, 2006  
Ph.D., Harbin Institute of Technology, 2002  
B.S., Harbin Institute of Technology, 1997

### Adjunct Professor

#### Eberhart, Robert

Start Year: 1978  
Ph.D., University of California at Berkeley, 1965  
A.B., Harvard University, 1958

## Civil Engineering

## Professor and Chair

### Abolmaali, Seyedali

Ph.D., University of Oklahoma, 1999  
M.S., University of Oklahoma, 1984  
B.S., University of Oklahoma, 1980

## Professor of Practice

### Najafi, Mohammad

M.S., Purdue University, 1988  
Ph.D., Louisiana Tech University, 1983  
B.S., Texas Tech University, 1976

## Professor

### Ardekani, Siamak

Start Year: 1989  
Ph.D., The University of Texas at Austin, 1984  
M.S., The University of Texas at Austin, 1981  
B.S., The University of Texas at Austin, 1980

### Hossain, Md

Start Year: 2004  
Ph.D., North Carolina State University, 2002  
M.E., Asian Institute of Technology, 1997  
B.Tech., Indian Institute of Technology, 1994

### Hoyos, Laureano

Start Year: 2000  
Ph.D., Georgia Institute of Technology, 1998  
M.S., Georgia Institute of Technology, 1996  
M.S., University of Puerto Rico - Mayaguez, 1993  
M.S., Universidad del Cauca - Columbia, 1991  
B.S., Universidad de la Costa - Columbia, 1988

### Puppala, Anand

Start Year: 1996  
Ph.D., Louisiana State University, 1993  
M.S., Indian Institute of Technology, 1987  
B.S., Andhra University, 1985

### Williams, James

Start Year: 1986  
Ph.D., The University of Texas at Austin, 1986  
M.S.C.E., University of New Mexico, 1977  
B.S., University of New Mexico, 1976

### Yazdani, Nur

Start Year: 2005  
Ph.D., University of Maryland, College Park, 1984  
M.S., University of Oklahoma, 1981  
B.S., University of Engineering and Technology, Dhaka, Bangladesh, 1977

## Associate Professor

### Chao, Shih-Ho

Ph.D., University of Michigan Ann Arbor, 2005  
M.S., National Chung-Hsing University, Taiwan, 1995  
B.S., National Taiwan University, Taiwan, 1993

### Kruzic, Andrew

Start Year: 1988  
Ph.D., University of California at Davis, 1984  
M.S., University of California at Berkeley, 1976  
B.S., Loyola University of Los Angeles, 1975

### Mattingly, Stephen

Start Year: 2002  
Ph.D., University of California-Irvine, 2000  
M.S., The University of Texas at Arlington, 1994  
B.S., Rice University, 1991

**Romanoschi, Stefan**

Ph.D., Louisiana State University, 1999  
M.S., Louisiana State University, 1996  
B.S., Technical University Gheorghe Asachi Iassy Romania, 1991

**Sattler, Melanie**

Start Year: 2003  
Ph.D., The University of Texas at Austin, 1996  
M.S., The University of Texas at Austin, 1993  
B.S., Texas A&M; University, 1990

**Seo, Dong-Jun**

Ph.D., Utah State University, 1988  
M.S., Massachusetts institute of Technology, 1985  
B.S., Seoul National University, 1983

**Assistant Professor**

**Choi, Hyeok**

Ph.D., University of Cincinnati, 2007  
M.S., Sungkyunkwan University, 2000  
B.S., Sungkyunkwan University, 1998

**Yu, Xinbao**

Ph.D., Case Western Reserve University, 2009  
M.S., Clarkson University, 2005  
M.S., Southeast University, 2003  
B.S., Chang'an University, 2000

**Senior Lecturer**

**Ghandehari, Mostafa**

M.Tech., University of California at Davis, 1983  
M.E.A., University of Utah, 1980  
M.S., University of Arizona, 1978  
B.A., University of Utah, 1974

**Prabakar, Srinivas**

Start Year: 2013  
Ph.D., University of Texas at Arlington, 2012  
M.E., Annamalai University, 2004  
Diploma, Annamalai University, 2003  
B.Tech., Madras University, 2000

**Razavi, Seyed Mohammad**

Start Year: 2013  
Ph.D., University of Texas at Arlington, 2013  
M.S., Sharif University of Technology, 2007  
B.S., University of Tehran, 2005

**Computer Science and Engineering**

**Professor**

**Ahmad, Ishfaq**

Start Year: 2002  
Ph.D., 1992  
M.S., Syracuse University, 1987  
B.S.E.E., University of Engineering and Technology, Lahore, Pakistan, 1985

**Chakravarthy, Upendranath**

Ph.D., University of Maryland, College Park, 1985  
M.S., University of Maryland, College Park, 1981  
B.E., Indian Institute of Science, India, 1973

**Das, Gautam**

Ph.D., University of Wisconsin, Madison, 1990  
B.Tech., IIT Kanpur, India, 1983

**Das, Sajal**

Start Year: 1999  
Ph.D., University of Central Florida, 1988



M.S., Indian Institute of Science, 1984  
B.Tech., University of Calcutta, 1983  
B.S., University of Calcutta, 1980

**Ding, Chris**

**Elmasri, Ramez**

Start Year: 1990  
M.S., Stanford University, 1980  
Ph.D., Stanford University, 1980  
B.S., Alexandria University, 1972

**Kamangar, Farhad**

Start Year: 1983  
Ph.D., The University of Texas at Arlington, 1980  
M.S., The University of Texas at Arlington, 1977  
B.S., University of Tehran, 1975

**Kumar, Mohan**

Ph.D., Indian Institute of Science, 1992  
M.Tech., Indian Institute of Science, 1985  
B.E., Bangalore University, 1982

**Kung, David**

Start Year: 1991  
Ph.D., Norwegian Institute of Technology, 1984  
B.S., Peking University, 1977  
M.S., Norwegian Institute of Technology

**Makedon, Fillia**

Ph.D., Northwestern, 1982

**Peterson, Lynn**

Start Year: 1982  
Ph.D., The University of Texas Southwestern Medical Center at Dallas, 1978  
M.S., University of Michigan, 1966  
M.A., Duke University, 1963  
B.A., Wittenberg University, 1962

**Walker, Roger**

Start Year: 1973  
Ph.D., The University of Texas at Austin, 1972  
M.S., The University of Texas at Austin, 1970  
B.S., The University of Texas at Austin, 1963

**Zaruba, Gergely**

Start Year: 2008  
Ph.D., University of Texas at Dallas, 2001  
M.S., Technical University of Budapest, 1997

**Associate Professor**

**Athitsos, Vassilis**

Start Year: 2011  
Ph.D., Boston University, 2006  
M.S., University of Chicago, 1997  
B.S., University of Chicago, 1995

**Che, Hao**

Ph.D., The University of Texas at Austin, 1998  
M.S., The University of Texas at Arlington, 1994  
B.S., Nanjing University, 1984

**Fegaras, Leonidas**

Start Year: 1996  
Ph.D., University of Massachusetts, 1993  
M.S., University of Massachusetts, 1987  
B.E.E., National Tech University of Athens, 1985

**Gao, Jean**

Ph.D., Purdue University, 2002  
M.S., Rose-Hulman Institute of Technology, 1996  
B.S., Shanghai Jiao Tong University/Shanghai Medical University, 1990

**Huang, Heng**

Start Year: 2011

**Huber, Manfred**

Ph.D., 2000

M.S., University of Massachusetts, 1993

B.S., University of Karlsruhe, 1991

**Lei, Yu**

Ph.D., North Carolina State University, 2002

M.S., Chinese Academy of Sciences, 1996

B.S., Wuhan University, 1993

**Li, Chengkai**

Start Year: 2011

Ph.D., University of Illinois at Urbana-Champaign, 2007

M.Eng., Nanjing University, 2000

B.S., Nanjing University, 1997

**Liu, Donggang**

Ph.D., North Carolina State University, 2005

M.S., Chinese Academy of Science, 2001

B.S., Beijing Institute of Technology, 1998

**Liu, Yonghe**

Ph.D., Rice University, 2003

M.S., Tsinghua University, 1999

B.S., Tsinghua University, 1998

**Weems, Bob**

Start Year: 1985

Ph.D., Northwestern University, 1984

M.S., Northwestern University, 1982

B.A., Lewis University, Illinois, 1980

**Wright, Matthew**

Start Year: 2005

Ph.D., University of Massachusetts, 2005

M.S., University of Massachusetts, 2002

**Assistant Professor**

**Csallner, Christoph**

Ph.D., Georgia Institute of Technology, 2008

M.S., Georgia Institute of Technology, 2002

Diploma Inf., Universitat Stuttgart

**Huang, Junzhou**

Start Year: 2011

Ph.D., Rutgers University, 2011

M.S., Chinese Academy of Sciences, 2003

B.Eng., Huazhong University, 1996

**Mariottini, Gian-Luca**

**Senior Lecturer**

**Brezeale, Darin**

**Khalili, Bahram**

**Levine, David**

M.S.C.S., The University of Texas at Arlington, 1975

B.S., University of Texas at Austin, 1974

**O'Dell, James Mike**

**Electrical Engineering**

**Professor**

**Alavi, Kambiz**

Start Year: 1988

Ph.D., Massachusetts Institute of Technology, 1981  
M.S., Massachusetts Institute of Technology, 1977  
B.S., Massachusetts Institute of Technology, 1972

**Bredow, Jonathan**

Start Year: 1989  
Ph.D., University of Kansas, 1989  
M.S., Iowa State University, 1980  
B.S., Kansas State University, 1977

**Butler, Donald**

Start Year: 2002  
Ph.D., 1986  
M.S., University of Rochester, 1981  
B.A.Sc., University of Toronto, 1980

**Carter, Ronald**

Start Year: 1979  
Ph.D., Michigan State University, 1971  
M.S., Iowa State University, 1964  
B.S., Iowa State University, 1962

**Celik-Butler, Zeynep**

Start Year: 2002  
Ph.D., University of Rochester, 1987  
M.S., University of Rochester, 1984  
B.S., Bogazici University, 1982

**Chiao, Jung-Chih**

Ph.D., California Institute of Technology, 1995  
M.S., California Institute of Technology, 1991  
B.S., National Taiwan University, 1988

**Devarajan, Venkat**

Start Year: 1990  
Ph.D., The University of Texas at Arlington, 1979  
M.S., Indian Institute of Technology, 1975  
B.S., Indian Institute of Technology, 1973

**Kondraske, George V**

Start Year: 1982  
Ph.D., The University of Texas at Arlington & The University of Texas Southwestern Medical Center at Dallas, 1982  
M.S., The University of Texas at Arlington & The University of Texas Southwestern Medical Center at Dallas, 1980  
B.S., University of Rochester, 1978

**Lee, Wei-Jen**

Start Year: 1986  
Ph.D., The University of Texas at Arlington, 1985  
M.S., National Taiwan University, 1980  
B.S., National Taiwan University, 1978

**Lewis, Frank L**

Start Year: 1990  
Ph.D., Georgia Institute of Technology, 1981  
M.S., University of West Florida, 1977  
B.S., Rice University, 1971

**Liang, Qilian**

Start Year: 2002  
Ph.D., University of Southern California, 2000  
M.S., Beijing University of Posts and Telecommunications, 1996  
B.S., Wuhan University, 1993

**Magnusson, Robert**

Start Year: 1984  
Ph.D., Georgia Institute of Technology, 1976  
M.S., Georgia Institute of Technology, 1973  
B.S., University of Central Florida, 1971

**Manry, Michael T**

Start Year: 1982

Ph.D., The University of Texas at Austin, 1976  
M.S., The University of Texas at Austin, 1973  
B.S., The University of Texas at Austin, 1971

**Rao, Kamisetty R**

Start Year: 1966  
Ph.D., University of New Mexico, 1966  
M.S., University of Florida, 1960  
M.S., University of Florida, 1959  
B.E., University of Madras, 1952

**Stephanou, Harry**

Start Year: 2004  
Ph.D., Purdue University, 1976  
M.S.E., Purdue University, 1973  
B.S.E.E., American University of Beirut, 1972

**Associate Professor**

**Davis, W Alan**

Start Year: 1983  
Ph.D., University of Michigan, 1971  
M.S., University of Michigan, 1964  
B.S., University of Michigan, 1963

**Dillon, William E**

Start Year: 1971  
Ph.D., The University of Texas at Arlington, 1972  
M.S., The University of Texas at Arlington, 1969  
B.S., Texas A&M; University, 1965

**Jung, Sungyong**

Ph.D., Georgia Institute of Technology, 2002  
M.S., Georgia Institute of Technology, 1993  
B.S., Yeungnam University, 1991

**Oraintara, Soontorn**

Start Year: 2001  
Ph.D., Boston University, 2000  
M.S., University of Wisconsin, 1996  
B.S., King Mongkut's Institute of Technology, 1975

**Popa, Dan**

Ph.D., Rensselaer Polytechnic Institute, 1998  
M.S., Dartmouth College, 1994  
B.A., Dartmouth College, 1993

**Tjuatja, Saibun**

Start Year: 1993  
Ph.D., The University of Texas at Arlington, 1992  
M.S., Purdue University, 1988  
B.S., The University of Texas at Arlington, 1987

**Vasilyev, Michael**

Start Year: 2011  
Ph.D., Northwestern University, Evanston, IL, 1999  
M.S., Moscow Institute of Physics and Technology, Russia, 1993

**Zhou, Weidong**

Ph.D., University of Michigan, Ann Arbor, 2001  
M.E., Tsinghua University, China, 1996  
B.S., Tsinghua University, China, 1993

**Assistant Professor**

**Davoudi, Ali**

Start Year: 2011  
Ph.D., University of Illinois, 2010  
M.Sc., The University of British Columbia, 2005  
B.Sc., Sharif University of Technology, 2003

**Iqbal, Samir**

Start Year: 2007

Ph.D., Purdue University, 2007  
B.S., NED University of Engineering and Technology, Karachi, Pakistan, 1997

**Schizas, Ioannis**

Ph.D., University of Minnesota, 2011  
M.Sc., University of Minnesota, 2007  
5-year Diploma, University of Patras, Greece, 2004

**Wetz, David A**

Start Year: 2011  
Ph.D., Texas Tech University, 2006  
M.S., Texas Tech University, 2004  
B.S., Texas Tech University, 2003

**Senior Lecturer**

**Kenarangui, Rasool**

Start Year: 1995  
Ph.D., Iowa State University, 1980  
M.S., Iowa State University, 1978  
B.S., Iowa State University, 1976

**Russell, Howard**

Start Year: 2005  
Ph.D., Santa Clara University, 1976  
M.S., Texas A & M University, 1967  
B.S., Texas A & M University, 1966

**Industrial and Manufacturing Systems Engineering**

**Professor**

**Chen, Victoria**

Ph.D., Cornell University, 1993  
M.S., Cornell University, 1991  
B.S., The Johns Hopkins University, 1988

**Corley, Herbert**

Start Year: 1971  
Ph.D., The University of Texas at Arlington, 1997  
Ph.D., University of Florida, 1971  
M.S., Georgia Institute of Technology, 1969  
B.S., Georgia Institute of Technology, 1967

**Liles, Donald**

Start Year: 1979  
Ph.D., The University of Texas at Arlington, 1978  
M.S., The University of Texas at Arlington, 1974  
B.S., The University of Texas at Arlington, 1970

**Priest, John**

Start Year: 1982  
Ph.D., The University of Texas at Arlington, 1980  
M.S., The University of Texas at Arlington, 1975  
B.S., General Motors Institute, 1973

**Associate Professor**

**Huff, Brian**

Start Year: 1994  
Ph.D., The University of Texas at Arlington, 1993  
M.S., The University of Texas at Arlington, 1989  
B.S., West Virginia University, 1985

**Imrhan, Sheik**

Start Year: 1986  
Ph.D., Texas Tech University, 1983  
M.S., University of Alabama, 1981  
B.S., University of Guyana, 1973

**Jones, Erick**

Ph.D., University of Houston, 2003

M.S., University of Houston, 1996  
B.S., Texas A&M University, 1993

**Rogers, Jamie**

**Rosenberger, Jay**

Start Year: 2003  
Ph.D., Georgia Institute of Technology, 2001  
M.S., University of California-Berkeley, 1997  
B.S., Harvey Mudd, 1996

**Assistant Professor**

**Ferreira, Susan**

Ph.D., Arizona State University, 2002  
M.S., Arizona State University, 1990  
B.S., Arizona State University, 1987

**Zeng, Li**

Ph.D., University of Wisconsin - Madison, 2009  
M.S., University of Wisconsin - Madison, 2007  
M.S., Tsinghua University, China, 2004  
B.S., Tsinghua University, China, 2002

**Senior Lecturer**

**Boardman, Bonnie**

Start Year: 1999  
Ph.D., University of Arkansas, 1997  
M.S., Texas A&M; University, 1992  
B.S., University of Arkansas, 1991

**Materials Science and Engineering**

**Professor**

**Aswath, Pranesh**

Ph.D., Brown University, 1990  
M.S., Brown University, 1987  
B.E., Indian Institute of Science, Bangalore, India, 1985  
B.S., St. Joseph's College, Bangalore University, 1982

**Eisenbaumer, Ronald**

Start Year: 1991  
Ph.D., Stanford University, 1978  
B.S., Purdue University, 1973

**Kim, Choong-Un**

Start Year: 1996  
Ph.D., University of California at Berkeley, 1993  
M.S., Seoul National University, 1987  
B.A., Seoul National University, 1985

**Meletis, Efstathios**

Start Year: 2005  
Ph.D., GEorgia Institute of Technology, 1981  
M.S., Georgia Institute of Technology, 1978  
Diploma, National Technical University, Athens, 1975

**Associate Professor**

**Hao, Yaowu**

Start Year: 2005  
Ph.D., Massachusetts Institute of Technology, 2003  
M.S., University of Florida, 1998  
M.S., University of Science and Technology, Beijing, 1993  
B.S., University of Science and Technology, Beijing, 1990

**Koh, Seong Jin**

Ph.D., University of Illinois at Urbana-Champaign, 1998  
B.S., Seoul National University, 1987

## Assistant Professor

### Liu, Fuqiang

Start Year: 2011  
Ph.D., Pennsylvania State University, 2006  
M.S., Chinese Academy of Sciences, 2002  
B.S., Beijing University of Chemical Technologies, 1997

## Research Professor

### Chen, Nai Yuen

Start Year: 2007  
Sc.D., Massachusetts Institute of Technology, 1959  
M.Sc., Louisiana State University, 1954  
B.Sc., University of Shanghai, China, 1947

### Kirk, Wiley P

Start Year: 1999  
Ph.D., Stony Brook University, 1970  
M.S., Stony Brook University, 1967  
B.A., Washington University, 1964

### Tibbals, Harry Fred

Start Year: 2003  
Ph.D., University of Houston, 1970  
B.S., Baylor University, 1965

## Mechanical & Aerospace Engineering

### Professor

### Agonafer, Dereje

Start Year: 1999  
Ph.D., Howard University, 1984  
M.S., Howard University, 1978  
B.S., University of Colorado, 1972

### Armanios, Erian

Start Year: 2009  
Ph.D., Georgia Institute of Technology, 1985  
M.S., University of Cairo, 1979  
B., University of Cairo, 1974

### Chan, Wen

Start Year: 1988  
Ph.D., Purdue University, 1979  
M.S., Tennessee Technological University, 1972  
B.S., National Cheng Kung University, 1969

### Haji-Sheikh, Abdolhossein

Start Year: 1966  
Ph.D., University of Minnesota, 1965  
M.A., University of Michigan, 1961  
M.S., University of Michigan, 1959  
B.S., University of Tehran, Iran, 1956

### Hullender, David

Start Year: 1970  
Ph.D., Massachusetts Institute of Technology, 1970  
M.S., Oklahoma State University, 1967  
B.S., Oklahoma State University, 1966

### Lawrence, Kent

Start Year: 1961  
Ph.D., Arizona State University, 1965  
M.S., Texas Tech University, 1960  
B.S., Texas Tech University, 1959

### Lu, Frank

Start Year: 1987  
Ph.D., Pennsylvania State University, 1988  
M.S.E., Princeton University, 1983

M.A., Cambridge University, 1980  
B.A., Cambridge University, 1976

**Luo, Cheng**

Ph.D., University of California, Berkeley, 2000  
M.S., University of Houston, 1997  
B.S., Hunan University, 1993

**Nomura, Seiichi**

Start Year: 1982  
D.Eng., University of Tokyo, 1982  
Ph.D., University of Delaware, 1980  
M.S., University of Tokyo, 1977  
B.S., University of Tokyo, 1974

**Wang, Bo**

Start Year: 1983  
Ph.D., University of Virginia, 1974  
M.S., University of Missouri, 1970  
B.S., National Taiwan University, 1967

**Wilson, Donald**

Start Year: 1968  
Ph.D., The University of Texas at Arlington, 1973  
M.S., University of Tennessee, 1965  
B.S., Georgia Institute of Technology, 1961

**Woods, Robert**

Start Year: 1974  
Ph.D., Oklahoma State University, 1971  
M.S., Oklahoma State University, 1970  
B.S., Southern Methodist University, 1968

**You, Seung**

Start Year: 1990  
Ph.D., University of Minnesota at Minneapolis, 1990  
M.S., University of Minnesota at Minneapolis, 1986  
B.S., Seoul National University, 1982

**Associate Professor**

**Chudoba, Bernd**

Ph.D., Cranfield University, England, 2001  
M.S., Cranfield University, England, 1995  
Dipl. Ing., University of Applied Sciences FH, Aachen, Germany, 1994

**Dancila, Dragos**

Start Year: 2011  
Ph.D., Georgia Institute of Technology, 1998  
M.S., Georgia Institute of Technology, 1992  
Aeronautical Engineer, Polytechnic Institute Bucharest, 1986

**Dennis, Brian**

Ph.D., Pennsylvania State University, 2000  
M.S., Pennsylvania State University, 1997  
B.S., Pennsylvania State University, 1995

**Dogan, Atilla**

Ph.D., University of Michigan, 2000  
M.S., University of Michigan, 1998  
M.S., Istanbul Technical University, 1994  
B.S., Istanbul Technical University, 1991

**Huang, Haiying**

Ph.D., Georgia Institute of Technology, 1998  
M.S., Georgia Institute of Technology, 1997  
B.S., Beijing University of Aeronautics and Astronautics, 1991

**Makeev, Andrew**

**Meng, Desheng**

**Shiakolas, Panayiotis**

Start Year: 1996



Ph.D., The University of Texas at Arlington, 1992  
M.S., The University of Texas at Austin, 1988  
B.S., The University of Texas at Austin, 1986

**Subbarao, Kamesh**

Ph.D., Texas A&M; University, 2001  
M.S., Indian Institute of Science, 1995  
B.Tech., Indian Institute of Technology, 1993

**Tong, Albert**

Start Year: 1983  
Ph.D., Carnegie-Mellon University, 1983  
M.S., California Institute of Technology, 1978  
B.S., University of Hawaii, 1977

**Assistant Professor**

**Adnan, Ashfaq**

**Bowling, Alan**

Start Year: 2011  
Ph.D., Stanford University, 1998  
M.S., Stanford University, 1993  
B.S., The University of Texas at Austin, 1988

**Harris, Robert**

Ph.D., UT Austin, 2008  
M.S., Stanford, 2000  
B.S., UT Austin, 1994

**Jain, Ankur**

Ph.D., Stanford University, 2007  
M.S., Stanford University, 2003  
B.Tech., Indian Institute of Technology (IIT), Delhi, 2001

**Kim, Daejong**

Start Year: 2011  
Ph.D., University of Texas at Austin, 2004  
M.S., Seoul National University, Korea, 1993  
B.S., Seoul National University, Korea, 1991

**Maddalena, Luca**

Start Year: 2011  
Ph.D., Virginia Polytechnic Institute and State University, 2007  
M.S.E., Laurea Degree in Aerospace Engineering, Politecnico di Milano (Italy), 2004

**Massa, Luca**

Start Year: 2011  
Ph.D., Mississippi State University, 2000  
M.S., Politecnico di Bari & Mississippi State University, 1997  
B.S.M.E., Politecnico di Bari, 1996

**Moon, Hyejin**

Start Year: 2007  
Ph.D., University of California, Los Angeles, 2005  
M.S., Sogang University, 1997  
B.S., Sogang University, 1995

**Shin, Donghyun**

Ph.D., Texas A&M University, 2011  
M.S., Ohio University, 2008  
B.S., Hanyang University, 2006

**Yang, Bo**

Ph.D., University of Houston, 1998  
M.S., University of Houston, 1996  
B.S., University of Science and Technology of China, 1992

**Professor Emeritus**

**Goolsby, Roger**

Ph.D., University of California at Berkeley, 1971  
M.S., University of California at Berkeley, 1968

B.S., The University of Texas at Arlington, 1967

### Senior Lecturer

#### Han, Zhen

Ph.D., Beijing University, 1989  
M.S., Beijing University, 1985  
B.S., Xian Jiaotong University, 1982

#### Kumar, Ratan

#### Michael, Nancy

#### Wimberly, Clarence

Start Year: 2011  
Ph.D., Texas A&M; University, 1968  
M.S., The University of Alabama, 1965  
B.S., Texas A&M; University, 1961

### Lecturer

#### Harris, Cecil

## College of Liberal Arts

### Art + Art History

#### Professor

#### Hower, Robert

Start Year: 2005  
M.F.A., Cranbrook Academy of Art, 1975  
B.F.A., University of Nebraska, Omaha, 1973

#### Huerta Lozano, Benito

Start Year: 1997  
M.A., New Mexico State University, 1978  
B.F.A., University of Houston, 1976

#### Keens, David

Start Year: 1974  
M.F.A., University of Washington, 1974  
B.A., California State University at Long Beach, 1972

#### North, Kenda

Start Year: 1989  
M.F.A., State University of New York at Buffalo, 1976  
B.A., Colorado College, 1972

#### Palmeri, Nancy

Start Year: 1996  
M.F.A., University of Nebraska, 1993  
B.F.A., Southern Illinois University, 1989

#### Vaccaro, Mary

Start Year: 1994  
Ph.D., Columbia University, 1994  
M.A., Columbia University, 1988  
B.A., Williams College, 1986

#### Associate Professor

#### Graham, Lisa

Start Year: 1992  
M.F.A., Iowa State University, 1992  
B.F.A., University of Northern Iowa, 1989

#### Jolly, Marilyn

Start Year: 1999  
M.F.A., University of Oklahoma, 1983  
B.A., University of Science and Arts of Oklahoma, 1972

**McWilliams, R Leighton**

M.F.A., Florida State University, 1982  
B.B.A., The University of Texas at Arlington, 1978

**Ortiz, Andrew**

Start Year: 1998  
M.F.A., State University of New York at Brockport, 1995  
M.A., Humboldt State University, 1992  
B.A., Humboldt State University, 1990

**Plummer, Jack**

M.F.A., Texas Christian University, 1970  
B.F.A., Texas Christian University, 1965

**Weiss, Barton**

Start Year: 1998  
M.F.A., Columbia University, 1978  
B.A., Temple University, 1975

**Wood, Nicholas**

Start Year: 1977  
M.F.A., New York State College of Ceramics at Alfred, 1977  
B.A., San Francisco State University, 1972

**Assistant Professor**

**Alexander, Amanda**

Ph.D., Ohio State University, 2010  
M.A., Ohio State University, 2007  
B.S., Indiana University-Bloomington, 2000

**Belli, Melia**

Start Year: 2010  
Ph.D., University of California, LA, 2009  
M.A., University of London, 2005

**Ikeda, Zenas**

Start Year: 2009  
M.F.A., Kansas State University, 2008  
B.F.A., Kansas State University, 2000

**Lauster, Darryl**

M.F.A., University of Houston, 1998  
B.A., San Diego State University, 1995

**Lima, Benjamin**

**Smith, Dwain Ya'Ke**

**Terrasi, Salvatore**

**Special Member**

**Florentin, Bryan**

**Huckaby, Sedrick**

**Lapthisophon, Stephen**

**Communication**

**Associate Professor**

**Christie, Thomas**

Ph.D., University of North Carolina, 1993  
M.S., Florida State University, 1986  
M.A., Webster University, 1981  
B.A., Northeast Louisiana University, 1975

**Clark, Andrew**

Ph.D., University of Florida, 2003  
M.A.M.C., University of Florida, 2000  
B.A., Indiana University-Purdue University, 1997

**Ingram, Tom**

Start Year: 1982  
Ph.D., University of North Texas, 1982  
M.B.A., West Texas State University, 1976  
B.B.A., The University of Texas at Austin, 1975

**Jang, Chyng-Yang**

Start Year: 2004  
Ph.D., Michigan State University, 2003  
M.A., Michigan State University, 1996  
B.S., National Taiwan University, 1991

**Markham Shaw, Charla**

Start Year: 1993  
Ph.D., Louisiana State University, 1993  
M.A., Baylor University, 1987  
B.A., Angelo State University, 1986

**Megwa, Eronini**

Ph.D., University of Missouri Columbia, 1987  
M.S., Iowa State University of Science Technology, 1982  
B.S., University of Nigeria, 1978

**Assistant Professor**

**Chatterjee, Karishma**

Ph.D., The Ohio State University, 2007  
M.A., Emerson College, 2001  
M.A., Delhi University, 1998

**Harp, Dustin**

Ph.D., University of Wisconsin, Madison, 2002  
M.A., University of Texas at Austin, 1997  
B.A., Sonoma State University, CA, 1992

**Pribanic-Smith, Erika**

Ph.D., University of Alabama, 2010  
M.A., University of Alabama, 1999  
B.A., Mount Union College, 1997

**Su, Chunke**

Ph.D., University of Illinois at Urbana, Champaign, 2007  
M.A., University of Illinois at Urbana, Champaign, 2002  
B.A., Peking University, Beijing, 2000

**Tremayne, Mark**

Ph.D., University of Wisconsin, Madison, 2002  
M.A., University of Texas, Austin, 1998  
B.A., University of California, Berkeley, 1989

**Wigley, Shelley**

Ph.D., University of Oklahoma, 2007  
M.A., Oklahoma State University, 1999  
B.S., Oklahoma State University, 1991

**Senior Lecturer**

**Horton, Brian**

Ph.D., The Ohio State University, 2007  
M.A., The Ohio State University, 2004  
B.A., Ball State University, 1999

**Criminology & Criminal Justice**

**Professor**

**Del Carmen, Alejandro**

Start Year: 1996  
Ph.D., Florida State University, 1997  
M.S., Florida State University, 1993  
B.S., Florida International University, 1991

## Associate Professor

### Bing, Robert

Start Year: 1991  
Ph.D., Florida State University, 1987  
M.S., Florida State University, 1976  
B.A., College of the Holy Cross, 1975

## Assistant Professor

### Davis, Jaya

Ph.D., Prairie View A&M; University, 2010  
M.A., University of Houston – Clear Lake, 2007  
B.S., University of Houston – Clear Lake, 2005

### Jeong, Seokjin

Ph.D., Michigan State University, 2010  
M.S., Michigan State University, 2005  
B.A., Michigan State University, 2002

### Love, Tony

Ph.D., Texas A&M; University, 2012  
M.S., Texas A&M; University, 2009  
B.S., Texas A&M; University, 2004

### Rodriguez, John

Ph.D., Prairie View A&M; University, 2007  
M.S., University of Texas-Pan American, 2003  
B.S., University of Texas-Pan American, 1998

## Visiting Assistant Professor

### Copeland, Christopher

M.A., University of Texas at Arlington, 2005  
B.A., University of Texas at Arlington, 2000  
D.Sc., Dakota State University

## Senior Lecturer

### Butler, Randall

M.A., The University of Texas at Arlington, 2002  
M.L.I.S., Brigham Young University, 1989  
Ph.D., Brigham Young University, 1980  
M.A., Loma Linda University, 1973

### Carpenter, Karel

M.A., University of Texas at Arlington, 2003  
B.S., University of Texas at Dallas, 1986

### Dobbs, Rhonda

Ph.D., Florida State University, 2004  
M.A., Virginia Polytechnic Institute and State University, 1996  
B.A., University of Texas at Austin, 1993

### Eddings, Patricia

M.S., University of Florida, 2010  
B.S., Mississippi College, 1973

### Smith, Kristy

M.A., University of Texas at Arlington, 2009  
B.A., University of Texas at Arlington, 2004

### West, Royce

J.D., Texas Southern University, 2008  
B.S., Southern University, 1997

## English

### Professor

### Alaimo, Stacy

Start Year: 1994

Ph.D., University of Illinois, 1994  
M.A., University of Wisconsin, 1986  
B.A., Gustavus Adolphus College, 1985

**Morris, Timothy**

Start Year: 1990  
Ph.D., Princeton University, 1983  
B.A., Michigan State University, 1979

**Roemer, Kenneth**

Start Year: 1971  
Ph.D., University of Pennsylvania, 1971  
M.A., University of Pennsylvania, 1968  
B.A., Harvard University, 1967

**Associate Professor**

**Frank, Luanne**

Start Year: 1969  
Ph.D., University of Michigan, 1970  
M.A., 1963  
M.A., Emory University, 1959  
B.A., University of North Carolina, 1955

**Gustafson, Kevin**

Start Year: 1999  
Ph.D., University of Virginia, 1996  
M.A., University of Virginia, 1990  
B.A., Pacific Lutheran University, 1986

**Henderson, Desiree**

Start Year: 2004  
Ph.D., University of California, San Diego, 2001  
M.A., University of California, San Diego, 1997  
B.A., Occidental College, 1994

**Ingram, Penelope**

Ph.D., University of New South Wales, 1999  
M.A., Yale University, 1994  
B.A., Smith College, 1992

**Matheson, Neill**

Start Year: 2003  
Ph.D., 1995  
M.A., Johns Hopkins University, 1987  
B.A., Reed College, 1983

**Porter, Kevin**

Start Year: 2002  
Ph.D., University of Wisconsin, 2002  
M.A., Auburn University, 1997  
B.A., Trenton State College, 1992

**Richardson, Timothy**

Start Year: 2004  
Ph.D., Loyola University, Chicago, 2004  
M.F.A., Old Dominion University, 1997  
B.A., University of North Texas, 1994

**Smith, Johanna**

Start Year: 1988  
Ph.D., Claremont Graduate School, 1985  
M.A., Claremont Graduate School, 1971  
B.A., University of San Francisco, 1969

**Stodnick, Jacqueline**

Start Year: 2002  
Ph.D., University of Notre Dame, 2002  
M.Phil., University of Manchester, 1995  
B.A., University of Manchester, 1994

**Tigner, Amy**

Start Year: 2006

Ph.D., Stanford University, 2003  
M.A., University of Wyoming, 1994  
B.A., University of Wyoming, 1988

### **Assistant Professor**

#### **Arce, William**

Ph.D., University of Southern California, 2009  
M.A., University of Southern California, 2001  
B.A., University of California, Berkeley, 1997

#### **Warren, James**

Ph.D., The University of Texas at Austin, 2006  
M.A., The University of Virginia, 1999  
B.A., The University of Oklahoma, 1997

#### **Zhang, Yuejiao**

Ph.D., University of Central Florida, 2010  
M.A., Indiana University Purdue University Fort Wayne, 2005

### **History**

#### **Professor**

##### **Adam, Thomas**

Start Year: 2001  
Ph.D., University of Leipzig, 1998  
M.A., University of Leipzig, 1994

##### **Demhardt, Imre**

Start Year: 2008  
Ph.D., University of Frankfurt am Main, 1995  
M.A., University of Frankfurt am Main, 1991  
M.A., University of Frankfurt am Main, 1987

##### **Fairbanks, Robert**

Start Year: 1983  
Ph.D., University of Cincinnati, 1981  
M.A., Indiana State University, 1974  
B.A., Greenville College, 1972

##### **Haynes, Sam**

Start Year: 1993  
Ph.D., University of Houston, 1988  
M.A., University of Houston, 1984  
B.A., Columbia University, 1978

##### **Kyle, Donald**

Start Year: 1984  
Ph.D., McMaster University, 1981  
B.Ed., University of Toronto, 1977  
M.A., McMaster University, 1974  
B.A., York University, 1973

##### **Morris, Christopher**

Start Year: 1992  
Ph.D., University of Florida, 1991  
M.A., University of Western Ontario, 1985  
B.A., University of Western Ontario, 1981

##### **Palmer, Stanley**

Start Year: 1973  
Ph.D., Harvard University, 1973  
A.B., Brown University, 1966

##### **Rodnitzky, Jerry**

Start Year: 1966  
Ph.D., University of Illinois, 1967  
M.A.T., University of Chicago, 1962  
B.A., University of Chicago, 1959

#### **Associate Professor**

**Cawthon, Elisabeth**

Start Year: 1988  
Ph.D., University of Virginia, 1985  
M.A., University of Virginia, 1981  
B.A., Louisiana Tech University, 1978

**Cole, Stephanie**

Start Year: 1996  
Ph.D., University of Florida, 1994  
M.A., University of Florida, 1988  
B.A., The University of the South, 1984

**Dulaney, William**

Start Year: 1986  
Ph.D., Ohio State University, 1984  
M.A., Ohio State University, 1974  
B.A., Central State University, 1972

**Garrigus, John**

Start Year: 2006  
Ph.D., Johns Hopkins University, 1988  
M.A., Johns Hopkins University, 1985  
B.A., De Pauw University, 1983

**Goldberg, Joyce**

Start Year: 1982  
Ph.D., Indiana University, 1981  
M.A., Indiana University, 1973  
B.A., Indiana University, 1972

**Jalloh, Alusine**

Start Year: 1993  
Ph.D., Howard University, 1993  
M.A., Howard University, 1989  
B.A., University of Sierra Leone, 1986

**Maizlish, Stephen**

Start Year: 1979  
Ph.D., University of California at Berkeley, 1978  
M.A., University of Michigan, 1968  
B.A., University of California at Berkeley, 1967

**Narrett, David**

Start Year: 1984  
Ph.D., Cornell University, 1981  
M.A., Cornell University, 1976  
B.A., Columbia University, 1973

**Reinhardt, Steven**

Start Year: 1987  
Ph.D., Northern Illinois University, 1982  
M.A., University of Wisconsin at Madison, 1973  
B.A., Southern Illinois University, 1971

**Saxon, Gerald**

Start Year: 1987  
Ph.D., University of North Texas, 1979  
M.A., Lamar University, 1975  
B.A., Lamar University, 1973

**Trevino, Roberto**

Start Year: 1999  
Ph.D., Stanford University, 1993  
A.M., Stanford University, 1988  
M.Ed., University of Houston, 1980  
B.A., Houston Baptist University, 1970

**Assistant Professor**

**Babiracki, Patryk**

Start Year: 2009  
Ph.D., Johns Hopkins University, 2008  
M.A., Johns Hopkins University, 2004



B.A., Portland State University, 2002

**Bateman, Oliver**

Start Year: 2012  
Ph.D., University of Pittsburgh, 2012  
M.A., University of Pittsburgh, 2010  
J.D., Valpraiso University School of Law, 2007  
B.A., University of North Carolina at Chapel Hill, 2001

**Rose, Sarah**

Start Year: 2009  
Ph.D., University of Illinois at Chicago, 2008  
M.A., University of Chicago, 2001  
B.A., University of Chicago, 1997

**Salinas, Cristina**

Start Year: 2012  
Ph.D., University of Texas, 2011

**Zimmer, Kenyon**

Ph.D., University of Pittsburgh, 2010  
M.A., University of Pittsburgh, 2005  
B.A., Bennington College, 2002

**Professor Emeritus**

**Green, George**

Start Year: 1966  
Ph.D., 1966  
M.A., Florida State University, 1962  
B.A., The University of Texas at Austin, 1961

**Philp, Kenneth**

Start Year: 1968  
Ph.D., Michigan State University, 1968  
M.A., University of Michigan, 1964  
B.A., Michigan State University, 1963

**Richmond, Douglas**

Start Year: 1976  
Ph.D., University of Washington, 1976  
M.A., University of Washington, 1971  
B.A., University of Washington, 1968

**Linguistics**

**Professor**

**Fitzgerald, Colleen**

Start Year: 2008  
Ph.D., University of Arizona, 1997  
M.A., University of Arizona, 1994  
B.A., Loyola University, 1991

**Silva, David**

Start Year: 1993  
Ph.D., Cornell University, 1992  
M.A., Cornell University, 1989  
A.B. MCL, Harvard University, 1986

**Associate Professor**

**Stvan, Laurel**

Start Year: 2001  
Ph.D., Northwestern University, 1998  
M.A., 1988  
B.A., University of Illinois at Chicago, 1986

**Assistant Professor**

**Kilpatrick, Cynthia**

Start Year: 2009

Ph.D., University of California, San Diego, 2009  
M.A., University of Texas at El Paso, 2003  
B.A., Lee College, 1992

**Sabbagh, Joseph**

Start Year: 2009  
Ph.D., Massachusetts Institute of Technology, 2005  
B.A., University of California, Santa Cruz, 2000

**Witzel, Jeffrey**

Ph.D., University of Arizona, 2010  
M.A., University of Arizona, 2007  
M.A., University of Hawaii, 2002  
B.A., University of Massachusetts at Amherst, 1997

**Professor Emeritus**

**Edmondson, Jerold**

Start Year: 1981  
Dr. Phil. Habil., Technical University, Berlin, 1979  
Ph.D., University of California at Los Angeles, 1973  
M.A., University of California at Los Angeles, 1969  
B.S., Purdue University, 1963

**Senior Lecturer**

**Witzel, Naoko**

Start Year: 2010  
Ph.D., University of Arizona, 2010  
M.A., University of Arizona, 2008  
M.A., Tokyo University of Foreign Studies, 2003  
M.A., University of Hawaii, 2002  
B.A., Tokyo University of Foreign Studies, 1999

**Modern Languages**

**Associate Professor**

**Choi, Jinny**

Start Year: 1998  
Ph.D., Georgetown University, 1998  
M.A., University of California at Irvine, 1992  
B.A., The University of Texas at Arlington, 1989

**Conway, Christopher**

Start Year: 1996  
Ph.D., University of California, San Diego, 1996  
M.A., University of California, San Diego, 1994  
B.A., University of California, Santa Cruz, 1991

**Elliott, Raymond**

Start Year: 1992  
Ph.D., Indiana University, 1992  
M.A., Purdue University, 1987  
B.A., Heidelberg College, 1984

**Israel-Pelletier, Aimee**

Start Year: 1993  
Ph.D., Rutgers University, 1981  
M.A., Rutgers University, 1972  
B.A., Montclair State University, 1970

**Rings, Lana**

Start Year: 1985  
Ph.D., University of Southern California, 1985  
M.A., University of Missouri, 1973  
B.A., Washburn University of Topeka, 1970

**Ruiz-Perez, Ignacio**

Start Year: 2005  
Ph.D., University of California, Santa Barbara, 2005  
Licencia, University of Veracruz, Mexico, 1998

**Sol, Antoinette**

Start Year: 1995  
Ph.D., University of California at Los Angeles, 1994  
M.A., University of California at Los Angeles, 1990  
B.A., Loyola-Marymount University, 1975

**van Noort, Kimberly**

Ph.D., Boston University, 1995  
M.A., University of Nebraska-Lincoln, 1988  
B.A., University of Nebraska-Lincoln, 1986

**Assistant Professor**

**Austin, Amy**

Start Year: 2007  
Ph.D., Emory University, 2004  
B.A., University of Kansas, 1997

**Kania, Sonia**

Start Year: 2003  
Ph.D., University of Wisconsin at Madison, 2000  
M.A., University of Wisconsin at Madison, 1994  
B.S., University of Illinois at Urbana-Champaign, 1990

**Stewart, Christopher**

Ph.D., University of Illinois at Urbana-Champaign, 2009  
M.A., University of Illinois at Urbana-Champaign, 2004  
B.A., Furman University, 1991

**Watson, Sonja**

Start Year: 2007  
M.A., University of Tennessee, 2005  
Ph.D., University of Tennessee, 2005  
B.A., College of William and Mary, 1996

**Music**

**Department Chair**

**Bogard, Rick**

D.M.A., University of North Texas, 1994  
M.M., Baylor University, 1978  
B.M.Ed., University of Central Arkansas, 1977

**Professor**

**Burton, John**

Start Year: 2006  
D.M.A., USC, 1987  
B.M., Rice University, 1979  
M.M., Rice University, 1979

**Powell, Linton**

Start Year: 1976  
Ph.D., University of North Carolina, 1974  
M.F.A., University of Georgia, 1969  
B.M., Florida State University, 1966

**Tam, Jing**

Start Year: 1989  
M.M., New England Conservatory of Music, 1976  
B.M., New England Conservatory of Music, 1975

**Associate Professor**

**Cavanagh, Daniel**

Start Year: 2005  
M.M., University of Oregon, 2004  
B.M., St. Olaf College, 2001

**Chave, George**

Start Year: 1992

Ph.D., Washington University, 1988  
M.M., State University of New York at Binghamton, 1983  
B.M., Syracuse University, 1981

**Espinosa, Sergio**

D.M.A., The University of Iowa, 2001  
M.M., Ithaca College, 1997  
Diplome Professionnelle de Violon, Conservatoire de La Chaux-de-Fonds, 1989

**Hunt, Graham**

Start Year: 2001  
Ph.D., Duke University, 2001  
M.A., Duke University, 1996  
B.A., Amherst College, 1994

**Ishii, Timothy**

Start Year: 2004  
M.M., University of North Texas, 1991  
B.M., University of North Texas, 1987

**Jessup, Carol**

Start Year: 1978  
D.M.A., University of Michigan, 1987  
B.A., The University of Texas of the Permian Basin, 1977  
M.M., Michigan State University, 1971  
B.M., Texas Tech University, 1969

**Kenaston-French, Karen**

D.M.A., University of North Texas, 2003  
M.M., Southern Methodist University, 1986  
M.S.M., Perkins School of Theology, 1986  
B.A., West Virginia Wesleyan College, 1984

**Kim, Soo**

D.M.A., University of North Texas, 1997  
M.M., Ewha Womens University, Seoul, Korea, 1986  
B.M., Ewha Womens University, Seoul, Korea, 1984

**Lange, Diane**

Start Year: 1999  
Ph.D., Michigan State University, 1999  
M.M.Ed., Central Michigan University, 1995  
B.M.Ed., Central Michigan University, 1986

**Solomons, John**

Start Year: 1997  
D.M.A., University of North Texas, 2003  
M.M., University of Hartford, 1984  
B.M., Texas Christian University, 1982

**Stotter, Douglas**

Start Year: 2005  
D.M.A., University of Iowa, 1993  
M.M., University of Michigan, 1985  
B.M.E., University of Michigan, 1983

**Varner, Michael**

Start Year: 1981  
D.M.A., University of North Texas, 1999  
M.M., University of Michigan, 1977  
B.M.E., Bowling Green State University, 1976

**Walvoord, Martha**

Start Year: 2006  
D.M.A., University of Michigan, 2005  
M.M., University of Michigan, 2002  
B.M., Rice University, 2000

**Assistant Professor**

**Atkinson, Sean**

Ph.D., Florida State University, 2009  
M.M., Florida State University, 2006

B.M., Furman University, 2004

**Cho, Young-Hyun**

D.M.A., Eastman School of Music of the University of Rochester, 2008

Graduate Performance Diploma, Peabody Conservatory of Johns Hopkins University, 2002

M.M., Peabody Conservatory of Johns Hopkins University, 2001

B.M., Seoul National University, 1999

**Evans, Clifton**

D.M.A., The University of Houston, 2001

M.M., The University of Texas at Austin, 1997

B.M., The University of Texas at Austin, 1995

**Pool, Christopher**

D.M.A., University of Arizona, 2004

M.M., University of Oklahoma, 1997

B.M., University of Central Oklahoma, 1995

**Philosophy and Humanities**

**Professor**

**Hekman, Susan**

Start Year: 1977

Ph.D., University of Washington, 1976

M.A., University of Washington, 1973

B.A., Carleton College, 1971

**Associate Professor**

**Baker, Lewis**

Start Year: 1985

Ph.D., Louisiana State University, 1981

M.A., Louisiana State University, 1977

B.A., The University of Texas at Austin, 1975

**Burgess-Jackson, Keith**

Start Year: 1989

Ph.D., 1989

M.A., University of Arizona, 1985

M.A., Wayne State University, 1983

J.D., Wayne State University, 1983

A.B., University of Michigan, 1979

**Chiasson, Charles**

Start Year: 1983

Ph.D., Yale University, 1979

B.A., Yale University, 1974

**Nussbaum, Charles**

Start Year: 1991

Ph.D., Emory University, 1988

M.A., New York University, 1980

M.S., Julliard School of Music, 1970

B.S., Julliard School of Music, 1969

**Reeder, Harry**

Start Year: 1982

Ph.D., University of Waterloo, 1977

M.A., University of Waterloo, 1974

B.A., University of Illinois, 1968

**Williford, Kenneth**

**Assistant Professor**

**Byrd, Miriam**

Start Year: 2005

Ph.D., University of Georgia, 2001

M.A., University of North Carolina, Chapel Hill, 1992

B.A., Emory University, 1990

## Political Science

### Senior Vice Provost

#### Moore, Michael

Start Year: 1992  
Ph.D., The University of Nebraska, 1993  
M.A., The University of Nebraska, 1989  
B.A., Washburn University of Topeka, 1987

### Professor

#### Cichock, Mark

Start Year: 1985  
Ph.D., University of South Carolina, 1983  
M.A., University of South Carolina, 1979  
B.S., University of Wisconsin-Stevens Point, 1976

#### Farrar-Myers, Victoria

Start Year: 1997  
Ph.D., University at Albany, SUNY, 1997  
M.A., University of Illinois, Urbana-Champaign, 1992  
B.S., Russell Sage College; Troy, New York, 1990

#### Gutierrez, Jose

J.D., University of Houston, 1988  
Ph.D., The University of Texas at Austin, 1976  
M.A., St. Mary's University, 1968  
B.A., Texas A&I; University, 1966

#### Hekman, Susan

Start Year: 1977  
Ph.D., University of Washington, 1976  
M.A., University of Washington, 1973  
B.A., Carleton College, 1971

#### Ignagni, Joseph

Ph.D., Michigan State University, 1989  
M.A., Michigan State University, 1986  
M.S., Purdue University, 1984  
B.S., Michigan State University, 1981

#### Marshall, Thomas

Start Year: 1976  
Ph.D., University of Minnesota, 1976  
B.A., Miami University, 1971

#### Story, Dale

Start Year: 1978  
Ph.D., Indiana University, 1978  
M.A., Indiana University, 1974  
B.A., Southern Methodist University, 1972

### Associate Professor

#### Boyea, Brent

Ph.D., Rice University, 2006  
M.A., Rice University, 2002  
B.A., Case Western Reserve University, 1997

#### Clark, Jill

Start Year: 1978  
Ph.D., University of Wisconsin in Milwaukee, 1974  
M.S., University of Wisconsin in Milwaukee, 1971  
B.S., Iowa State University, 1965

#### Deen, Rebecca

Start Year: 1997  
Ph.D., Ohio State University, 1997  
M.A., Ohio State University, 1995  
B.A., Denison University, 1992

#### Saxe, Allan

Start Year: 1965  
Ph.D., University of Oklahoma, 1969  
M.A., University of Oklahoma, 1963  
B.A., University of Oklahoma, 1961

### **Assistant Professor**

#### **Bayram, Aytem**

Start Year: 2012  
Ph.D., The Ohio State University, 2011  
M.A., The Ohio State University, 2006  
MIS, North Carolina State University, 2004  
B.S., Middle East Technical University, 2002

#### **Hardt, Heidi**

Start Year: 2012  
Ph.D., Graduate Institute of International and Development Studies, Geneva, Switzerland, 2011  
M.S., London School of Economics, 2006  
B.A., University of Southern California, 2005

#### **Sasley, Brent**

Ph.D., McGill University, 2007  
M.A., University of Manitoba, 1998  
B.A., University of Manitoba, 1994

#### **Sledge, Daniel**

Start Year: 2010  
Ph.D., Cornell University, 2010  
M.S., Cornell University, 2008  
B.A., Indiana University–Bloomington, 2003

### **Associate Adjunct Professor**

#### **Little, Thomas**

Start Year: 1992  
Ph.D., Ohio State University, 1991  
M.A., Ohio State University, 1989  
B.A., University of North Carolina at Greensboro, 1986

### **Professor Emeritus**

#### **Butcher, Allan**

Ph.D., The University of Texas at Austin, 1970  
M.A., New School for Social Research, 1963  
B.A., The University of Florida, 1960

### **Senior Lecturer**

#### **Carter, Larry**

Start Year: 2012  
Ph.D., University of Oklahoma, 1997  
M.A., University of Oklahoma, 1993  
B.A., University of Oklahoma, 1989

## **Sociology and Anthropology**

### **Professor**

#### **Agger, Ben**

Start Year: 1994  
Ph.D., University of Toronto, 1976  
M.A., York University, 1974  
B.A., York University, 1973

#### **Shelton, Beth Anne**

Start Year: 1994  
Ph.D., The University of Texas at Austin, 1984  
M.A., The University of Texas at Austin, 1980  
B.S., Southern Methodist University, 1977

#### **Smith, Shelley**

Start Year: 1991

Ph.D., University of Michigan, 1990  
A.M., University of Michigan, 1985  
B.A., Southern Methodist University, 1984  
B.S., Southern Methodist University, 1984

**Young, Robert**

Start Year: 1991  
Ph.D., University of Michigan, 1982  
M.A., University of Kentucky, 1977  
B.A., Auburn University, 1972

**Associate Professor**

**Baker, Susan**

Start Year: 2005  
Ph.D., University of Texas, Austin, 1989  
M.A., University of California, Berkeley, 1986  
B.A., Trinity University, 1983

**Dunn, Dana**

Start Year: 1987  
Ph.D., University of North Texas, 1987  
M.A., The University of Texas at Dallas, 1981  
B.A., The University of Texas at Dallas, 1980

**Jacobson, Heather**

Start Year: 2006  
Ph.D., Brandeis University, 2006  
M.A., Brandeis University, 2001  
M.Phil., Trinity College, Dublin, 1995  
B.A., Carnegie Mellon University, 1993  
B.F.A., Carnegie Mellon University, 1993

**Kunovich, Robert**

Start Year: 2004  
Ph.D., 2001  
M.A., The Ohio State University, 1996  
B.A., Miami University, 1993

**Rouse, Linda**

Start Year: 1985  
Ph.D., Florida State University, 1979  
M.A., Adelphi University, 1972  
B.S., Cornell University, 1968

**Zloliniski, Christian**

Start Year: 2001  
Ph.D., University of California at Santa Barbara, 1998  
M.A., University of California at Santa Barbara, 1989  
B.A., Universidad Autonoma de Madrid, 1984

**Assistant Professor**

**Beamon, Krystal**

Ph.D., Oklahoma State University, 2005  
M.S., Oklahoma State University, 2001  
B.A., Oklahoma State University, 1999

**Cleghorn, Naomi**

Ph.D., Stony Brook University, 2006  
M.A., University of Texas at Austin, 1996  
B.A., University of Texas at Austin, 1993

**Han, Chunping**

**Khanduri, Ritu**

Start Year: 2007  
Ph.D., University of Texas at Austin, 2007  
M.Phil., Jawaharlal Nehru University, New Delhi, 1995  
M.A., Jawaharlal Nehru University, New Delhi, 1993  
B.A., University of Delhi, New Delhi, 1991

**Shelton, Jason**



Ph.D., University of Miami, 2005  
M.A., University of Miami, 2000  
B.A., Kent State University, 1998

**Speier, Amy**

Start Year: 2012  
Ph.D., University of Pittsburgh, 2005  
B.S., University of California Berkeley, 1997

**Professor Emeritus**

**Bastien, Joseph**

Start Year: 1977  
Ph.D., Cornell, 1973  
M.A., Cornell University, 1971  
M.E., State University of New York, 1963  
M.D., State University of New York, 1963  
B.A., Maryknoll College, 1958

**Eve, Raymond**

Start Year: 1976  
Ph.D., University of North Carolina at Chapel Hill, 1975  
B.A., University of North Carolina at Chapel Hill, 1969

**Lecturer**

**Ryan, Josephine**

**Theatre Arts**

**Professor**

**Gaupp, Andrew**

Start Year: 1991  
M.F.A., Trinity University, 1980  
B.A., Texas Tech University, 1976

**Lafontaine, Kim**

Start Year: 1999  
M.F.A., University of Southern California, 1981  
B.A., St. Cloud State University, 1978

**Associate Professor**

**Chapa, Joe**

Start Year: 1993  
M.F.A., University of Mississippi, 1991  
B.A., The University of Texas at Arlington, 1985

**Kongevick, Joseph**

Start Year: 1979  
M.F.A., Texas Christian University, 1976  
B.F.A., University of Wisconsin at Superior, 1974

**Maher, Dennis**

Start Year: 1982  
Ph.D., University of Wisconsin, 1980  
M.A., Memphis State University, 1974  
B.A., St. Louis University, 1972

**College of Nursing**

**Nursing**

**Associate Dean**

**Schira, Mary**

Start Year: 1992  
Ph.D., Medical College of Georgia, 1997  
M.S.N., Duke University, 1980  
B.S.N., Ohio State University, 1974

## Clinical Assistant Professor

### Baxley, Susan

Start Year: 2009  
Ph.D., The University of Texas at Arlington, 2008  
M.S.N., Texas Womanas University, 1975  
B.S.N., The University of Texas at Galveston, 1968

### Behan, Deborah

Start Year: 2011  
Ph.D., Texas Womanas University, 2010  
M.S., University of Oklahoma, 1996  
B.S.N., Southwest Missouri State University, 1993

### Carlson, Susan

Start Year: 1997  
Ph.D., University of San Diego, 2004  
M.S.N., Mississippi University for Women, 1984  
B.S.N., Loretto Heights College, 1982

### Cipher, Daisha

Start Year: 2006  
Post-Doctoral Fellowship (Statistics), University of North Texas, 1999  
Ph.D., Southern Methodist University, 1998  
M.S., University of Texas Southwestern Medical Center at Dallas, 1996  
B.A., University of Texas at Austin, 1994

### Collom, Chad

Start Year: 2011  
D.N.P., Rocky Mountain University of Health Professions, 2009  
M.S.N., University of Texas Arlington, 2004  
B.S.N., Texas Womanas University, 2000

### Crenshaw, Jeannette

Start Year: 2004  
D.N.P., Texas Tech University, 2012  
M.S.N., The University of Texas at Austin, 2001  
B.S.N., The University of Texas at Austin, 1974

### Ellis, Elizabeth

Start Year: 2012  
DNP, The University of Tennessee, 2005  
MSN, The University of Tennessee, 1995  
BSN, The University of Tennessee, 1993

### Ewing, Beverly

D.N.P., The George Washington University, 2010  
F.N.P., The George Washington University, 1997  
M.S.N. A.N.P., George Mason University, 1994

### Fowler, Christopher

Start Year: 2005  
Ph.D., University of Cincinnati, 2007  
M.S.N., University of Cincinnati, 1999  
B.S.N., Columbia Union College, 1993

### Gonzalez, John

D.N.P., Texas Womens University, 2010  
M.S.N. A.C.N.P., State University of New York at Stony Brook, 2004  
B.S.N., Texas Womens University, 2000

### Grande, Linda

Start Year: 2012  
DNP, The University of Iowa, 2008  
MSN - Pediatric Nurse Practitioner, The University of Iowa, 2003  
BSN, Maryville University, 1995

### Handy, Nancy

Start Year: 1992  
Ph.D., Texas Womanas University, 1992  
M.S.N., Texas Womanas University, 1976  
B.S.N., Baylor University, 1967

**Hart, Valerie**

Start Year: 2012  
Ph.D., The University of Texas at Arlington, 2006  
CNS, University of Arkansas for Medical Sciences, 1990  
BSN, University of Central Arkansas, 1972

**John, Lauri**

Ph.D., Texas Womens University, 1997  
M.S.N., The University of Texas Health Science Center Houston, 1990  
B.S.N., Loyola University of Chicago, 1978

**Lieser, Carol**

Start Year: 2011  
Ph.D., The University of Texas at Arlington, 2012  
MSN, The University of Texas at Arlington, 1997  
BSN, Berea College Berea, 1972

**Michael, Jacqueline**

Start Year: 2005  
Ph.D., Texas Womanas University, 2005  
MSN, University of Texas at El Paso, 1999  
WHCNP, University of Texas Southwestern Medical Center, 1993  
BSN, Texas Womanas University, 1990

**Perley, Mary Jo**

Ph.D., Ohio State University, 1986  
M.S.N., Ohio State University, 1981  
B.S.N., Texas Christian University, 1972

**Plonien, Cynthia**

Start Year: 2013  
D.N.P., Texas Christian University, 2012  
M.S.N., The University of Texas at Arlington, 1984  
B.S.N., The University of Texas at Arlington, 1978

**Taylor, Lisa**

Start Year: 2006  
Ph.D., Texas Womanas University, 2000  
Post Masteras Certificate, Texas Womanas University, FNP, 1995  
M.S.N., Texas Womanas University, 1994  
B.S.N., Texas Womanas University, 1979

**Wood, Phyllis**

Start Year: 2012  
DNP, Concordia University Wisconsin, 2010  
MSN, Baylor University, Louise Herrington School of Nursing, 2006  
BSN, Baylor University, Louise Herrington School of Nursing, 1999

**Clinical Associate Professor**

**Adams, Phyllis**

Start Year: 1995  
Post Masteras Certificate, Texas Womanas University, FNP, 1995  
Ed.D., Texas Southern University, 1989  
M.S.N., Ohio State University, 1972  
B.S.N., Dillard University, 1969

**Baker, Joy**

Start Year: 2000  
Ph.D., The Fielding Institute, 2000  
M.A., The Fielding Institute, 1996  
M.B.A., Nova University, 1985  
M.S.N., Oklahoma University, 1982  
B.S.N., Oklahoma Baptist University, 1974

**Interim Dean, College of Nursing; Associate Dean, Dept. MSN Administration, Education, and PhD Programs; Professor**

**Gray, Jennifer**

Start Year: 1989  
Ph.D., Texas Womanas University, 1997  
M.S.N., The University of Texas at Arlington, 1989  
B.S.N., Central State University, 1977

## **Interim Director, Doctor of Nursing Practice, Clinical Assistant Professor**

### **Dihigo, Sharolyn**

D.N.P., The University of Texas Arlington, 2011  
M.S.N., The University of Texas at Arlington, 1996  
B.S.N., Texas Tech University, 1989

## **Interim Director, MSN Education Program; Clinical Instructor**

### **Lindley, Marie**

Start Year: 2011  
M.S.N., Columbia University, NY, 1999  
B.S.N., William Paterson University, Wayne, NJ, 1994

## **Professor**

### **Bond, Mary Lou**

Start Year: 1989  
Ph.D., The University of Texas at Austin, 1984  
M.N., University of Pittsburgh, 1973  
B.S.N., Texas Christian University, 1962

### **Cason, Carolyn**

Start Year: 1997  
M.S.N., The University of Texas at Austin, 1972  
Ph.D., The University of Texas at Austin, 1972  
B.S.N., The University of Texas Medical Branch, 1967

### **Leflore, Judy**

Start Year: 2003  
M.S.N., The University of Texas at Arlington, 2003  
Ph.D., Texas Woman's University, 2000  
M.S. Business, Amber University, 1991  
B.S.N., The University of Texas at Arlington, 1988

### **Mancini, Mary**

## **Associate Professor**

### **Anderson, Cheryl**

Start Year: 1991  
Ph.D., Texas Woman's University, 1985  
M.N., University of California at Los Angeles, 1976  
B.S., San Diego State University, 1974  
Diploma in Nursing, Scott & White Memorial Hospital School of Nursing, 1969

### **Barnes, Donelle**

Start Year: 2007  
Ph.D., University of California, San Francisco, 1996  
M.S.N., Community Health Nursing, 1985  
B.S.N., California State University, 1979

### **Courtney, Maureen**

Start Year: 1980  
Ph.D., Texas Woman's University, 1978  
M.S.N., Texas Woman's University, 1974  
B.S.N., Texas Woman's University, 1970

### **Raudonis, Barbara**

Start Year: 1997  
Ph.D., The University of Texas at Austin, 1991  
M.S., University of Colorado, 1984  
M.S. Pathology, University of Maryland, 1978  
B.S.N., The Catholic University of America, 1978  
B.A., The College of Notre Dame of Maryland, 1974

### **Schmelzer, Marilee**

Start Year: 1988  
Ph.D., Texas Woman's University, 1987  
M.S.N., University of North Carolina, 1981  
B.S.N., Northern Michigan University, 1975

## Assistant Professor

### Adegbola, Maxine

#### Anderson, Mindi

Start Year: 2000

Ph.D., Texas Womens University, 2007

M.S.N., University of Texas at Arlington, with PNP and Educator Roles, 1997

B.S.N., Texas Christian University, 1993

#### Cazzell, Mary

Ph.D., University of Texas at Arlington, 2009

B.S.N., Marquette University, Milwaukee, WI, 1978

#### Daniel, Kathryn

Ph.D., University of Texas at Arlington, 2008

Post Master's Certificate, University of Texas at Arlington, ANP, GNP, 1997

M.S.N., Texas Woman's University, 1988

B.S.N., Baylor University, 1978

B.A., Sociology Baylor University, 1977

#### Mintz-Binder, Ronda

Start Year: 2011

D.N.P., Case Western Reserve, 2007

MN, UCLA, 1985

B.S.N., UCLA, 1982

B.A., UC Riverside, 1980

## Associate Adjunct Professor

### Hegstad, Lorraine

Adult/Geri Nurse Practitioner Post Master's Certificate, The University of Texas at Arlington, 1996

Ph.D., Arizona State University, 1981

M.S., University of Colorado, 1972

B.S.N., University of Texas Medical Branch Galveston, 1969

## Clinical Professor

### Snow, Diane

Start Year: 1979

Post Master's Certificate, The University of Texas at Arlington, PMHNP, 1995

Ph.D., Texas Woman's University, 1992

M.S.N., The University of Texas at Arlington, 1979

B.S.N., Duke University, 1967

## Assistant Clinical Professor

### Thomas, Patricia

Start Year: 2010

Ph.D., The University of Texas at Arlington, 2011

M.S.N., Vanderbilt University, 1991

B.S.N., University of Memphis, 1988

## Clinical Instructor

### Boger, Deborah

Start Year: 2012

MSN - Pediatric Nurse Practitioner, The University of Texas at Arlington, 2007

BSN, Winston-Salem State University, 2003

### Carter Griffin, Essence

Start Year: 2012

DNP - In progress, The University of Texas at Arlington, 2013

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 2011

BSN, Baylor University, 2007

### Duvall, Sara

Start Year: 2010

Emergency Nurse Practitioner, Post Master's Certificate, University of Texas at Arlington, 2007

MSN - Family Nurse Practitioner, Vanderbilt School of Nursing, 1990

BSN, David Lipscomb University, 1989

### Gillman, Paula

Start Year: 2003

Adult Geriatric Nurse Practitioner Post Master's Certificate, The University of Texas at Arlington, 1996

MSN - Clinical Nurse Specialist, The University of Texas at Arlington, 1992

BSN, Baylor University, 1984

**Harris, Marcia**

Start Year: 2012

DNP In progress, The University of Texas at Arlington, 2013

PMHNP - Post-Master's Certificate, The University of Texas at Arlington, 2010

MSN - Family Nurse Practitioner, Texas Woman's University, 2008

BSN, Grambling State University, 2002

**Haskew, Mary**

Start Year: 2012

MSN - Pediatric Nurse Practitioner, The University of Texas at Arlington, 1991

BSN, San Diego State University, 1987

**Kahveci, Kellie**

Start Year: 2008

M.S.N., The University of Texas at Arlington, 2003

Post Master's Certificate, The University of Texas at Arlington, GNP, 2003

B.S.N., The University of Texas at Arlington, 1987

**Laird, Sandra**

Start Year: 2011

DNP - In Progress, The University of Texas as Arlington, 2013

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 1996

BSN, Texas Christian University, 1992

**Major, Sayda**

Start Year: 2008

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 2006

BSN, University of Texas at Tyler, 1999

**Mcclean, Bethany**

Start Year: 2000

M.S.N., University of Texas at Arlington, 1993

B.S.N., Incarnate Word, 1983

**Mckay, Howard**

Start Year: 2007

Post Masters Certificate Acute Care Pediatric Nurse Practitioner, The University of Texas at Arlington, 2004

M.S.N., Wichita State University, 1995

B.S.N., Wichita State University, 1991

**Moake, Lindy**

Start Year: 2005

M.S.N., University of Pennsylvania, 2004

B.S.N., Texas A&M; University at Corpus Christi, 1992

**Moore, Jodie**

Start Year: 2012

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 2010

BSN, Texas Woman's University, 2006

**Moore, Sara**

Start Year: 2007

Post Masters Certificate Acute Care Pediatric Nurse Practitioner, University of Texas at Arlington, 2005

M.S.N., Pediatric Nurse Practitioner, University of Texas at Arlington, 2002

B.S.N., Thomas Jefferson University, 1993

**Parker, Patti**

Start Year: 1994

Post Master's Certificate, The University of Texas at Arlington, ANP/GNP, 1994

M.S.N., The University of Texas at Arlington, 1991

B.S.N., Baylor University, 1983

**Patrick, Vicki**

Start Year: 1997

Post Master's Certificate, The University of Texas at Arlington, ACNP, 1998

M.S.N., University of Colorado, 1976

B.S.N., Texas Christian University, 1972

Diploma, John Peter Smith Hospital School of Nursing, 1970

**Stevenson, Dixie**

Start Year: 2012  
MSN, The University of Texas at Arlington, 2004  
BSN, The University of Texas at Arlington, 1992

**Wright, Kimberly**

Start Year: 2011  
MSN - Family Nurse Practitioner, Arkansas State University, 2007  
BSN, University of Tennessee at Memphis, 1993

**Wyrick, Nancy**

Start Year: 2000  
M.S., University of Texas at Arlington, 1993  
B.S.N., University of Texas at Arlington, 1989

## College of Science

### Biology

#### Professor

**Campbell, Jonathan**

Start Year: 1983  
Ph.D., University of Kansas, 1982  
M.A., The University of Texas at Arlington, 1977  
B.A., University of Mississippi, 1969

**Chippindale, Paul**

Start Year: 1996  
Ph.D., The University of Texas at Austin, 1995  
M.S., University of Toronto, 1990  
B.S., University of Guelph, 1986

**Chrzanowski, Thomas**

Start Year: 1981  
Ph.D., University of South Carolina, 1981  
M.S., University of South Carolina, 1976  
B.A., Bloomfield College, 1974

**Formanowicz, Daniel**

Start Year: 1985  
Ph.D., State University of New York at Albany, 1982  
M.S., Adelphi University, 1978  
B.S., State University of New York at Fredonia, 1976

**Frye, Bernard**

Start Year: 1962  
Ph.D., University of Oklahoma, 1972  
M.S., Baylor University, 1961  
B.S., Baylor University, 1960

**Grover, James**

Start Year: 1993  
Ph.D., University of Minnesota, 1988  
B.A., State University of New York, 1982

**McMahon, Robert**

Start Year: 1972  
Ph.D., Syracuse University, 1972  
B.A., Cornell University, 1966

**Robinson, James**

Start Year: 1978  
Ph.D., Utah State University, 1978  
M.S., Polytechnic Institute of Brooklyn, 1971  
B.S., Polytechnic Institute of Brooklyn, 1967

#### Associate Professor

**Bernard, David**

Start Year: 1995  
Ph.D., Howard University, 1992  
B.S., Howard University, 1983

**Betran, Esther**

Ph.D. Fellowship, University of Chicago, 1999  
Ph.D. Fellowship, University of Cambridge.UK, 1997  
Ph.D., Universitat Autònoma de Barcelona (Barcelona) Spain, 1996  
M.S., Universitat Autònoma de Barcelona, 1992  
B.S., Universitat Autònoma de Barcelona, 1990

**Gough, Laura**

Start Year: 2002  
Ph.D., Louisiana State University, 1996  
B.S., Brown University, 1990

**Passy, Sophia**

Start Year: 2001  
Ph.D., Bowling Green State University, 1997  
M.S., Sofia University, 1996

**Roner, Michael**

Start Year: 2002  
Ph.D., 1986  
M.S., Miami University, 1983  
B.S., Oregon State University, 1980

**Assistant Professor**

**Christensen, Shawn**

Start Year: 2006  
Ph.D., University of Utah, 1999  
B.A., University of Colorado, 1989

**Feschotte, Cedric**

Start Year: 2004  
Ph.D., University of Paris, France, 2001

**Hurdle, Julian**

Ph.D., University of Leeds, UK, 2005  
B.Sc., University of West Indies, Barbados, 2000  
B.Sc., University of West Indies, Barbados, 2000

**Mydlarz, Laura**

Start Year: 2006  
Ph.D., University of California at Santa Barbara, 2004  
M.S., Florida Atlantic University, 1998  
B.S., Florida Atlantic University, 1996

**Pires Da Silva, Andre**

Start Year: 2005  
Ph.D., Max Planck Institute for Biophysical Chemistry and University of Goettingen, Germany, 1999  
M.S., University of Heidelberg, Germany, 1994  
B.A., Universidade de Brasilia, Brazil, 1992

**Pritham, Ellen**

Start Year: 2006  
Ph.D., University of Massachusetts, 2002  
B.A., Boston University, 1992

**Chemistry & Biochemistry**

**Professor**

**Armstrong, Daniel**

Ph.D., Texas A&M; University, 1977  
M.S., Texas A&M; University, 1974  
B.S., Washington and Lee University, 1972

**Dasgupta, Purnendu**

Start Year: 2006  
Ph.D., Louisiana State University, 1977  
M.Sc., University Burdwan, India, 1970



B.Sc., University Burdwan, India, 1968

**Dias, Rasika**

Start Year: 1992

Ph.D., University of California, Davis, 1988

B.Sc., University of Peradeniya, Sri Lanka, 1983

**Eisenbaumer, Ronald**

Start Year: 1991

Ph.D., Stanford University, 1978

B.S., Purdue University, 1973

**Lovely, Carl**

Ph.D., University of Birmingham, 1990

B.Sc., University of Birmingham, 1987

**Macdonnell, Frederick**

Start Year: 1994

Ph.D., Northwestern University, 1993

B.S., University of Vermont, 1986

**Rajeshwar, Krishnan**

Start Year: 1983

Ph.D., Indian Institute of Science, 1974

M.S., Indian Institute of Technology, 1971

B.S., University College, Trivandrum, India, 1969

**Timmons, Richard**

Start Year: 1977

Ph.D., The Catholic University of America, 1962

B.Sc., St. Francis Xavier University, Canada, 1958

**Associate Professor**

**Heo, Jongyun**

Start Year: 2006

Ph.D., University of Wisconsin-Madison, 2001

M.S., Northern Illinois University, 1997

B.S., Songang University, India, 1987

**Kroll, Peter**

Habilitation, Aachen, 2005

Ph.D. Fellowship, Cornell, 1999

Ph.D., University of Technology Darmstadt, 1996

Diploma, University of Heidelberg, 1993

B.Sc., University of Heidelberg, 1989

**Mandal, Subhrangsu**

Post Doctoral, HHMI/University of Medicine and Dentistry of New Jersey, 2005

Post Doctoral, University of Alberta, 1999

Ph.D., Indian Institute of Science, 1998

M.Sc., Kalyani University, 1992

B.Sc., Midnapore College, 1989

**Schug, Kevin**

Start Year: 2005

Ph.D., Virginia Polytechnic Institute & State University, 2002

B.S., College of William & Mary, 1998

**Assistant Professor**

**Bugarin, Alejandro**

Start Year: 2012

Ph.D., Texas A&M; University, 2011

**Chowdhury, Saiful**

Start Year: 2012

Ph.D., Washington State University, 2006

**Foss, Frank**

Start Year: 2008

Ph.D., University of Virginia, 2006

B.S., University of Richmond, 1999

**Jeon, Junha**

Start Year: 2011  
Ph.D., University of Minnesota, 2009  
M.S., Sungkyunkwan University, 2002  
B.S., Sungkyunkwan University, 2000

**Johnson-Winters, Kayunta**

Ph.D. Fellowship, University of Arizona, 2010  
Ph.D., University of Wisconsin–Milwaukee, 2006  
B.A., Alverno College, 1999

**Perera, Roshan**

Start Year: 2008  
Ph.D. Fellowship, The Scripps Research Institute, 2008  
Ph.D., University of South Carolina, 2005  
M.S., University of Tromso, Norway, 1999  
B.S., Institute of Chemistry Ceylon, 1997

**Pierce, Bradley**

Ph.D., Carnegie Mellon University, 2003  
B.S., California State University, Chico, 1996

**Professor Emeritus**

**Pomerantz, Martin**

Start Year: 1976  
Ph.D., Yale University, 1964  
M.S., Yale University, 1961  
B.S., City College of New York, 1959

**Schelly, Zoltan**

Start Year: 1977  
D.Sc., Vienna Technical University, 1967  
B.S., Vienna Technical University, 1962

**Earth and Environmental Sciences**

**Professor**

**Basu, Asish**

Start Year: 2012  
Ph.D., Univ California Davis, 1975  
M.S., University of Chicago, 1969  
M.S., Calcutta University, 1966  
B.S., Calcutta University, 1964

**Mattioli, Glen**

Ph.D., Northwestern University, Evanston, IL, 1987  
M.S., Northwestern University, Evanston, IL, 1982  
B.A., University of Rochester, Rochester, NY, 1980

**Nestell, Merlynd**

Start Year: 1969  
M.A., Princeton University, 1977  
Ph.D., Oregon State University, 1966  
M.A., University of Wisconsin, 1959  
B.A., Andrews University, 1957

**Wickham, John**

Start Year: 1992  
Ph.D., Johns Hopkins University, 1969  
B.A., Pomona College, 1960

**Associate Professor**

**Hu, Qinhong**

Start Year: 2008  
Ph.D., University of Arizona, 1995  
M.S., Chinese Academy of Sciences, 1989  
B.S., Zhejiang (Agricultural) University, 1986

**Hunt, Andrew**

Start Year: 2007  
Ph.D., Liverpool University, 1988  
B.S., Liverpool University, 1981

### **Assistant Professor**

#### **Fan, Majie**

Ph.D., University of Arizona, 2009  
M.S., University of Arizona, 2005

#### **Griffith, Elizabeth**

Start Year: 2012  
Ph.D., Stanford University, 2008  
B.S., Missouri Univ Sci & Tech, 2000

#### **Griffith, William**

Start Year: 2012  
Ph.D., Stanford University, 2008  
M.S., University Massachusetts, 2003  
B.S., William & Mary, 1999

#### **Winguth, Arne**

Start Year: 2007  
Ph.D., University of Hamburg and Max-Planck-Institut fr Meteorologie, 1997  
M.S., University of Hamburg and Max-Planck-Institut fr Meteorologie, 1992  
B.S., University of Hamburg, 1987

### **Adjunct Professor**

#### **Nestell, Galina**

Start Year: 1998  
Ph.D., All Russia Geological Research Institute, 1990  
B.S., Leningrad Mining Institute, 1979

### **Associate Adjunct Professor**

#### **Standlee, Larry**

Start Year: 2000  
Ph.D., Rice University, 1978

### **Assistant Adjunct Professor**

#### **Rowe, Harold**

Start Year: 2008  
Ph.D., Stanford University, 2002

## **Interdisciplinary Science**

### **Director**

#### **Hale, Gregory**

## **Mathematics**

### **Professor**

#### **Aktosun, Tuncay**

Start Year: 2005  
Ph.D., Indiana University, 1986  
M.S., Indiana University, 1981  
B.S., Middle East Technical University, Turkey, 1978

#### **Chen, Benito**

Start Year: 2008  
Ph.D., California Institute of Technology, 1979  
B.S., National University of Mexico, 1973

#### **Cordero-Epperson, Minerva**

Start Year: 2001  
Ph.D., University of Iowa, 1989  
M.A., University of California at Berkeley, 1983  
B.S., University of Puerto Rico, 1981

**Han, Chien-Pai**

Start Year: 1982  
Ph.D., Harvard University, 1967  
M.A., University of Minnesota, 1962  
B.A., National Taiwan University, 1958

**Jorgensen, David**

Start Year: 1998  
Ph.D., University of Nebraska, 1996  
M.S., University of Nebraska, 1991  
B.A., San Diego State University, 1989

**Kojouharov, Hristo**

Start Year: 2000  
Ph.D., University of Wyoming, 1998  
M.Sc., Sofia University, Bulgaria, 1994  
B.A., Sofia University, Bulgaria, 1993

**Korzeniowski, Andrzej**

Start Year: 1983  
Ph.D., Wroclaw University, 1978  
M.S., Wroclaw University, 1974

**Li, Ren-Cang**

Start Year: 2006  
Ph.D., University of California at Berkeley, 1992  
M.S., The Chinese Academy of Sciences, China, 1988  
B.S., Xiamen University, China, 1985

**Liao, Guojun**

Start Year: 1989  
Ph.D., University of California at Berkeley, 1985  
M.A., University of California at Berkeley, 1981

**Liu, Chaoqun**

Start Year: 2000  
Ph.D., University of Colorado, 1989  
M.S., Tsinghua University, 1981  
B.S., Tsinghua University, 1967

**Liu, Yue**

Start Year: 1997  
Ph.D., Brown University, 1994  
M.A., Zhejiang University, 1987

**Nestell, Merlynd**

Start Year: 1969  
M.A., Princeton University, 1977  
Ph.D., Oregon State University, 1966  
M.A., University of Wisconsin, 1959  
B.A., Andrews University, 1957

**Su, Jianzhong**

Start Year: 1990  
Ph.D., University of Minnesota, 1990  
B.S., Shanghai Jiaotong University, 1984

**Sun-Mitchell, Shan**

Start Year: 2007  
Ph.D., Indiana University, 1992  
M.S., Indiana University, 1989  
B.S., Tongji University, 1982

**Vancliff, Michaela**

Start Year: 1998  
Ph.D., University of Washington, 1993  
B.S., University of Warwick, 1986

**Associate Professor**

**Ambartsoumian, Gaik**

Start Year: 2006

Ph.D., Texas A & M University, 2006  
M.S., Obninsk Institute of Nuclear Power Engineering, Russia, 2001

**Epperson, James**

Start Year: 2001  
Ph.D., The University of Texas at Austin, 1996  
B.S., Texas A&M; University, 1987

**Gornet, Ruth**

Start Year: 2002  
Ph.D., Washington University at St. Louis, 1993  
A.M., Washington University at St. Louis, 1989  
B.A., Drake University, 1987  
B.S.B.A., Drake University, 1987

**Grantcharov, Dimitar**

Start Year: 2010  
Ph.D., University of California, Riverside, 2003  
M.S., University of Sofia, Bulgaria, 1994

**Hawkins, Doyle**

Start Year: 1983  
Ph.D., University of North Carolina, Chapel Hill, 1983  
M.S., Texas A&M; University, 1977  
B.S., Lamar University, 1976

**Jorgensen, Theresa**

Start Year: 2007  
Ph.D., University of Nebraska, 2000  
M.S., University of Nebraska, 1997  
B.A., University of St. Thomas, 1993

**Shipman, Barbara**

Start Year: 1998  
Ph.D., University of Arizona, 1995  
B.S., University of Arizona, 1989

**Assistant Professor**

**Li, Yan**

Start Year: 2009  
Ph.D., University of Maryland, College Park, 2006  
M.S., University of Nebraska, Lincoln, 2002  
M.S., China Agriculture University, 2000  
B.S., Beijing Institute of Technology, 1997

**Physics**

**Professor**

**Brandt, Andrew**

Ph.D., University of California at Los Angeles, 1992  
M.S., University of California at Los Angeles, 1988  
B.S., College of William and Mary, 1985

**Cuntz, Manfred**

Start Year: 2001  
Ph.D., University of Heidelberg, 1988  
M.S., University of Heidelberg, 1985  
B.S., University of Heidelberg, 1980

**De, Kaushik**

Start Year: 1993  
Ph.D., Brown University, 1988  
Sc.M., Brown University, 1982  
B.A., City University of New York, 1981  
M.A., City University of New York, 1981

**Fry, John**

Ph.D., University of California at Riverside, 1966  
M.S., Baylor University, 1962  
B.S., Baylor University, 1961

**Koymen, Ali**

Start Year: 1990  
Ph.D., University of Michigan, 1984  
M.S., University of Michigan, 1980  
B.S., University of Hacettepe, Turkey, 1977

**Liu, Ping**

Ph.D., University of Amsterdam, Netherlands, 1994  
M.S., Central-South University, China, 1987

**Lopez, Ramon**

Ph.D., Rice University, 1986  
M.S., Rice University, 1984  
B.S., University of Illinois at Urbana-Champaign, 1980

**Musielak, Zdzislaw**

Start Year: 1999  
Ph.D., University of Gdansk, 1980  
M.S., 1976  
B.S., A. Mickiewicz University, 1975

**Ray, Asok**

Start Year: 1984  
Ph.D., Texas Tech University, 1977  
M.S., Texas Tech University, 1975  
M.S., Oklahoma State University, 1973  
B.Tech., Calcutta University, 1969  
B.S., Calcutta University, 1967

**Rubins, Roy**

Start Year: 1969  
Ph.D., St. Catherine's College, Oxford University, England, 1961  
B.A., St. Catherine's College, Oxford University, England, 1957

**Sharma, Suresh**

Start Year: 1977  
Ph.D., Brandeis University, 1976  
M.S., Meerut University, India, 1967  
B.S., Agra University, India, 1965

**Weiss, Alexander**

Start Year: 1984  
Ph.D., Brandeis University, 1983  
B.S., City College of New York, 1976

**White, Andrew**

Start Year: 1991  
Ph.D., Westfield College, University of London, 1972  
B.Sc., University of Southampton, 1969

**Yu, Jaehoon**

Start Year: 2001  
M.S., Korea University, 1985  
B.A., Korea University, 1983  
Ph.D., State University of New York at Stony Brook, 1983

**Zhang, Qiming**

Start Year: 1996  
Ph.D., International School for Advanced Studies, 1989  
M.S., Beijing University of Science and Technology, 1984  
B.S., Sichuan University, 1982

**Associate Professor**

**Chen, Wei**

Start Year: 2006  
Ph.D., Peking University, 1992  
M.S., Central South University, 1988  
B.S., Jilan University, 1985

**Fazleev, Nail**

Ph.D., Kazan State University, 1978  
M.S., Kazan State University, 1971

B.S., Kazan State University, 1970

### **Assistant Professor**

#### **Deng, Yue**

Ph.D., University of Michigan at Ann Arbor, 2006  
M.S., Peking University, 2001  
B.S., Peking University, 1997

#### **Farbin, Amir**

Start Year: 2007  
Ph.D., University of Maryland, 2003  
S.B., Massachusetts Institute of Technology, 1997

#### **Huda, Muhammad**

Start Year: 2009  
Ph.D., University of Texas at Arlington, 2004  
M.Sc., University of Texas at Arlington, 2002  
M.Sc., Cambridge University, UK, 1997  
B.Sc., University of Dhaka, 1996

#### **Jackson, Christopher**

#### **Mohanty, Samarendra**

#### **Ngai, Joseph**

Start Year: 2012  
Ph.D., University of Toronto, 2007  
M.S., University of Toronto, 2002  
B.S., University of Alberta, 2001

#### **Park, Sangwook**

## **Psychology**

### **Assistant Professor in Practice**

#### **Lopez, Nicolette**

Start Year: 2007  
Ph.D., University of North Texas, 2007  
M.S., University of North Texas, 2005  
B.A., University of North Texas, 2001

### **Professor**

#### **Gatchel, Robert**

Start Year: 2004  
Ph.D., University of Wisconsin at Madison, 1973  
M.S., University of Wisconsin at Madison, 1971  
B.A., State University of New York at Stony Brook, 1969

#### **Ickes, William**

Start Year: 1982  
Ph.D., The University of Texas at Austin, 1973  
B.S., Brigham Young University, 1969

#### **Levine, Daniel**

Start Year: 1983  
Ph.D., Massachusetts Institute of Technology, 1975  
M.S., University of Chicago, 1968  
B.A., Harvard College, 1967

#### **Mellgren, Roger**

Start Year: 1988  
Ph.D., Indiana University, 1970  
B.A., University of Kansas, 1966

#### **Paulus, Paul**

Start Year: 1970  
Ph.D., University of Iowa, 1971  
M.A., University of Iowa, 1970  
B.A., Otterbein College, 1966

## Associate Professor

### Fuchs, Perry

Start Year: 1998  
Ph.D., The University of Texas at Arlington, 1994  
M.S., The University of Texas at Arlington, 1992  
B.S., University of Calgary, 1990

### Jensen-Campbell, Lauri

Start Year: 2001  
Ph.D., Texas A&M; University, 1995  
M.S., Texas A&M; University, 1991  
B.A., Nyack College, 1987

### Kenworthy, Jared

Start Year: 2005  
Ph.D., University of Southern California, 2002  
M.A., University of Southern California, 1998  
B.S., Brigham Young University, 1996

### Mann, Martha

Start Year: 1983  
Ph.D., State University of New York at Albany, 1983  
M.A., Anna Maria College, 1977  
B.A., Anna Maria College, 1975  
R.N., Worcester City Hospital School of Nursing, 1973

### Peng, Yuan

Start Year: 2001  
Ph.D., The University of Texas Medical Branch, 1996  
M.D., West China University of Medical Sciences, 1985

## Assistant Professor

### Gagne, Jeffrey

Post Doctoral, University of Wisconsin-Madison, 2010  
Ph.D., Boston University, 2007  
M.A., Boston University, 1999  
Ed.M., Boston University, 1996  
B.A., Boston College, 1995

### Perrotti, Linda

Start Year: 2006  
Ph.D., Grad School & U. Center of the City University of New York, 2000  
M.Phil., Grad School & U. Center of the City University of New York, 1999  
B.S., Montclair State University, 1992

## Professor Emeritus

### Cox, Verne

Start Year: 1970  
Ph.D., University of Houston, 1964  
B.A., The University of Texas at Austin, 1960

## School of Social Work

### Social Work

#### Assistant Professor in Practice

### Hickerson, Jane

Ph.D., UTA, 1997  
M.S.S.W., University of Texas at Arlington, 1994  
M.A., University of Texas at Arlington, 1981

#### Associate Dean for Research & Community Outreach

### Bricout, John

#### Associate Dean of Academic Affairs



**Woody, Debra**

Start Year: 1997  
Ph.D., Virginia Commonwealth University, 1996  
M.S., Columbia University, 1981  
B.S.W., Texas Christian University, 1979

**Professor**

**Black, Beverly**

Start Year: 2007  
Ph.D., The University of Texas at Austin, 1989  
M.S.S.W., University of Wisconsin at Madison, 1977  
B.A., University of Wisconsin at Madison, 1975

**Elliott, Doreen**

Start Year: 1988  
Ph.D., University of Wales, 1986  
B.A., University of London, 1963

**Hegar, Rebecca**

Start Year: 1997  
Ph.D., Tulane University, 1986  
M.S.S.W., The University of Texas at Austin, 1975  
B.A., The University of Texas at Austin, 1972

**Hoefler, Richard**

Start Year: 1992  
Ph.D., University of Michigan, 1989  
M.A., University of Michigan, 1984  
M.S.W., University of Kansas, 1981  
B.S.W., University of Kansas, 1979

**Hunter, Ski**

Start Year: 1971  
Ph.D., Ohio State University, 1972  
M.S.W., San Diego State College, 1968  
M.S., University of North Texas, 1960  
B.A., University of North Texas, 1958

**Jordan, Cathleen**

Start Year: 1985  
Ph.D., University of California at Berkeley, 1986  
M.S.S.W., The University of Texas at Arlington, 1979  
B.A., University of Houston, 1973

**Pillai, Vijayan**

Start Year: 1999  
Ph.D., University of Iowa, 1983  
M.A., University of Indor, India, 1972  
B.S.C., University of Trivandrum, India, 1970

**Popple, Phillip**

Start Year: 2006  
Ph.D., Washington University, 1977  
M.S.W., Washington University, 1972  
B.A., University of North Texas, 1969

**Scannapieco, Maria**

Start Year: 1996  
Ph.D., University of Minnesota, 1991  
M.S.W., Temple University, 1984  
B.S.W., California State University, 1980

**Associate Professor**

**Basham, Randall**

Start Year: 2002  
Ph.D., The University of Tennessee, Knoxville, 2002  
M.S.W., West Virginia University, 1979  
B.A., West Liberty State College, 1977

**Cobb, Norman**

Start Year: 1989

Ph.D., University of California at Berkeley, 1986  
M.S.S.W., The University of Texas at Arlington, 1979  
M.Div., St. Paul School of Theology, 1970  
B.A., Texas Tech University, 1967

**Lehmann, Peter**

Start Year: 1995  
Ph.D., Wilfrid Laurier University, 1995  
M.S.W., Wilfrid Laurier University, 1982  
B.S.W., University of Windsor, 1979  
B.A., University of Windsor, 1978

**Mitschke, Diane**

Start Year: 2006  
Ph.D., University of Hawaii at Manoa, Honolulu, 2006  
M.S.W., University of Michigan, 2001  
B.S.W., University of Texas at Austin, 2000

**Moon, Sung**

Start Year: 2003  
Ph.D., University of Georgia, 2002  
M.S.W., University of South Carolina, 1999  
M.A., New Orleans Baptist Theological Seminary, 1997  
M.Div., Korea Baptist University, 1989  
B.A., Korea Baptist University, 1986

**Smith-Osborne, Alexa**

Start Year: 2006  
Ph.D., University of Maryland, 2006  
M.S.W., University of Maryland, 1975  
B.A., University of Virginia, 1973

**Assistant Professor**

**Adorno, Gail**

Ph.D., Florida State University, 2011  
M.S.W., Louisiana State University, 1987  
B.A., University of New Orleans, 1984

**Blakey, Joan**

Ph.D., University of Chicago, 2010  
M.S.W., University of Minnesota, 1999  
B.S., University of Minnesota, 1995

**Cronley, Courtney**

Ph.D., University of Tennessee, Knoxville, 2009  
M.S.S.W., University of Tennessee, Knoxville, 2006  
B.A., Oglethorpe University, 2002

**Madden, Elissa**

Ph.D., The University of Texas at Austin, 2010  
M.S.W., Baylor University, 2001  
B.A., Baylor University, 1997

**Praetorius, Regina**

Start Year: 2006  
Ph.D., Louisiana State University, 2006  
MSSW, University of Texas at Austin, 2000  
B.S.W., University of Texas at Austin, 1999

**Sanchez, Katherine**

Ph.D., University of Texas at Austin, 2011  
M.S.S.W., University of Texas at Austin, 1992  
B.A., University of Texas at Austin, 1989

**Small, Eusebius**

Ph.D. Fellowship, Washington University, 2011  
Ph.D., University of Houston, 2009  
M.S.S.W., Columbia University, NY, 2001  
B.S.W., Ramapo College, 2000

**Watson, Larry**

Ph.D., University of Texas at Arlington, 2007

M.S.S.W., University of Texas at Arlington, 1980  
M.A., Sam Houston State University, 1975  
B.S., Texas Tech University, 1971

### **Professor Emeritus**

#### **Callicutt, James W**

Ph.D., Brandeis University  
M.S.S.W., University of Tennessee  
B.S., Memphis State College

#### **Duehn, Wayne**

Ph.D., Washington University  
M.S.W., Loyola University  
B.A., North Central College

#### **Gaupp, Peter G**

Ph.D., University of Pittsburgh  
M.S.S.W., University of Texas at Austin  
B.S., Southwestern University

#### **Hernandez, Santos**

Start Year: 1998  
Ph.D., University of Denver, 1985  
M.S.W., Our Lady of the Lake University, 1974  
B.A., Our Lady of the Lake University, 1972

#### **Lecca, Pedro J**

Ph.D., University of Mississippi  
M.S., Long Island University  
B.S., Fordham University

#### **Litrio, John J**

M.S.W., Fordham University  
B.S., Syracuse University

#### **Mayadas, Nazneen**

Start Year: 1972  
D.S.W., Washington University, 1970  
M.S.S.A., Case Western Reserve University, 1961  
M.A., Allahabad University, 1956  
B.A., Isabella Thoburn College, 1954

#### **Mindel, Charles**

Start Year: 1976  
Ph.D., University of Illinois, 1971  
A.M., University of Illinois, 1967  
A.B., State University of New York at Stony Brook, 1964

#### **Schoech, Richard**

Start Year: 1979  
Ph.D., The University of Texas at Arlington, 1978  
M.S.W., The University of Texas at Arlington, 1973  
B.A., The University of Texas at Austin, 1968

#### **Shannon, M Coleen**

Ph.D., Texas Woman's University  
M.S.W., Tulane University  
B.A., Texas Christian University

#### **Torgerson, Fernando G**

Ph.D., University of Minnesota  
M.S., Columbia University  
B.A., State Teachers College, Minot, North Dakota

#### **Watts, Thomas**

Start Year: 1974  
Ph.D., Tulane University, 1976  
M.S.W., Arizona State University, 1970  
B.A., Wichita State University, 1963

## **School of Urban and Public Affairs**

## City and Regional Planning

### Graduate Advisor

**Field, Karolyn**

### Program Director

**Audirac, Ivonne**

Start Year: 2010  
M.Arch., University of Florida, 1992  
Ph.D., University of Florida, 1988  
M.Arch., Colorado State University, 1987  
Architect, Monterrey Institute of Technology (ITESM), 1978

### Professor

**Anjomani, Ardeshir**

Start Year: 1979  
Ph.D., University of Southern California, 1979  
M., University of Southern California, 1976  
M.Arch., University of Tehran, Iran, 1968

**Becker, Barbara**

Start Year: 2008  
Ph.D., University of Texas at Austin, 1989  
M.S., University of Texas at Austin, 1983  
B.S., University of Texas at Austin, 1969

**Li, Jianling**

Ph.D., University of California at Los Angeles, 1997  
M.A., University of California at Los Angeles, 1992  
B.S., Zhongshan University, 1982

### Associate Professor

**Arvidson, Enid**

Start Year: 1993  
Ph.D., University of Massachusetts, 1996  
M.R.P., University of Massachusetts, 1985  
B.A., University of California at Santa Barbara, 1979

**Grodach, Carl**

Start Year: 2006  
Ph.D., University of California Los Angeles, 2006  
M.S., The University of Texas Austin, 1999  
B.A., University of Arizona, 1995

### Assistant Professor

**Bezboruah, Karabi**

Start Year: 2009  
Ph.D., University of Texas at Dallas, 2008  
L.L.B., Gauhati University, 2002  
M.B.A., Gauhati University, 2001  
B.S., Gauhati University, 1998

**Ko, Yekang**

**Whittemore, Andrew**

Ph.D., University of California, Los Angeles, 2010  
M.C.P., Massachusetts Institute of Technology, 2004  
B.A., Haverford College, 2002

## Interdisciplinary Studies

### Assistant Director

**Wollman, Michael**

### Graduate Advisor

**Field, Karolyn**

**Assistant Professor**

**Connor, Michan**

Start Year: 2008  
Ph.D., University of Southern California, 2008  
B.A., Northwestern University, 1998

**Welch IV, James**

Ph.D., University of Texas at Dallas, 2009  
M.A.I.S., Texas State University, 2003  
B.A.I.S., Naropa University, 1992

**Clinical Professor**

**West, Mike**

Start Year: 2002  
Ed.D., Nova Southeastern University, 1987  
M.S. Economics, University of North Texas, 1977  
B.S. Psychology, University of North Texas, 1970

**Public Administration**

**Graduate Advisor**

**Field, Karolyn**

**Program Director**

**Coursey, David**

Start Year: 2011  
Ph.D., Syracuse University, Maxwell School, 1991  
M.P.A., University of Alabama at Birmingham, 1987  
B.A., University of Alabama at Birmingham, 1984

**Professor**

**Cole, Richard**

Start Year: 1980  
Ph.D., Purdue University, 1973  
M.A., University of North Texas, 1968  
B.A., University of North Texas, 1967

**Associate Professor**

**Hissong, Rod**

Start Year: 1988  
Ph.D., Rice University, 1989  
M.S., Iowa State University, 1978  
B.S., Iowa State University, 1974

**Martinez-Cosio, Maria**

M.A., University of California at San Diego, 2003  
Ph.D., University of California at San Diego, 2003  
M.Ed., University of San Diego, 1995  
B.A., University of California at San Diego, 1982

**Rodriguez, Alejandro**

Ph.D., Florida International University, 1999  
M.P.A., Marist College, 1991  
B.S., City College of New York, 1982

**Assistant Professor**

**Bezboruah, Karabi**

Start Year: 2009  
Ph.D., University of Texas at Dallas, 2008  
L.L.B., Gauhati University, 2002  
M.B.A., Gauhati University, 2001  
B.S., Gauhati University, 1998

**Casey, Colleen**

Start Year: 2008  
Ph.D., Saint Louis University, 2007  
M.S. Education, Southern Illinois University, 1997  
B.S. Fine Arts and Communication, Southern Illinois University, 1995

**Hamann, Darla**

Start Year: 2009  
Ph.D., University of Minnesota, 2009  
B.A., Saint Cloud State University, 1997

**Urban and Public Affairs**

**Graduate Advisor**

**Field, Karolyn**

**Program Director**

**Coursey, David**

Start Year: 2011  
Ph.D., Syracuse University, Maxwell School, 1991  
M.P.A., University of Alabama at Birmingham, 1987  
B.A., University of Alabama at Birmingham, 1984

**Professor**

**Anjomani, Ardeshir**

Start Year: 1979  
Ph.D., University of Southern California, 1979  
M., University of Southern California, 1976  
M.Arch., University of Tehran, Iran, 1968

**Cole, Richard**

Start Year: 1980  
Ph.D., Purdue University, 1973  
M.A., University of North Texas, 1968  
B.A., University of North Texas, 1967

**Associate Professor**

**Arvidson, Enid**

Start Year: 1993  
Ph.D., University of Massachusetts, 1996  
M.R.P., University of Massachusetts, 1985  
B.A., University of California at Santa Barbara, 1979

**Hissong, Rod**

Start Year: 1988  
Ph.D., Rice University, 1989  
M.S., Iowa State University, 1978  
B.S., Iowa State University, 1974

**Martinez-Cosio, Maria**

M.A., University of California at San Diego, 2003  
Ph.D., University of California at San Diego, 2003  
M.Ed., University of San Diego, 1995  
B.A., University of California at San Diego, 1982

**Rodriguez, Alejandro**

Ph.D., Florida International University, 1999  
M.P.A., Marist College, 1991  
B.S., City College of New York, 1982

**Assistant Professor**

**Casey, Colleen**

Start Year: 2008  
Ph.D., Saint Louis University, 2007  
M.S. Education, Southern Illinois University, 1997  
B.S. Fine Arts and Communication, Southern Illinois University, 1995



**Hamann, Darla**

Start Year: 2009

Ph.D., University of Minnesota, 2009

B.A., Saint Cloud State University, 1997

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax 817.272.1494  
©2013 [The University of Texas at Arlington](#)

# 2013-2014 Graduate Catalog

## Table of Contents

### 2013-2014 Graduate Catalog – Home

- **Degree Requirements**
  - **Master's Degree Requirements**
  - **Dual Degree Requirements**
  - **Doctoral Degree Requirements**
- **Fields of Study**
  - **School of Architecture**
    - **Architecture**
    - **Landscape Architecture**
  - **College of Business**
    - **Accounting**
    - **Business Administration**
    - **Economics**
    - **Finance and Real Estate**
    - **Health Care Administration**
    - **Information Systems & Operations Management**
    - **Management**
    - **Marketing**
  - **College of Education and Health Professions**
    - **Curriculum and Instruction**
    - **Educational Leadership and Policy Studies**
    - **Kinesiology**
  - **College of Engineering**
    - **Bioengineering**
    - **Civil Engineering**
    - **Computer Science and Engineering**
    - **Electrical Engineering**
    - **Industrial and Manufacturing Systems Engineering**
    - **Materials Science and Engineering**
    - **Mechanical & Aerospace Engineering**
  - **College of Liberal Arts**
    - **Art + Art History**



- **Communication**
- **Criminology & Criminal Justice**
- **English**
- **History**
- **Humanities**
- **Modern Languages**
- **Linguistics**
- **Music**
- **Philosophy & Humanities**
- **Political Science**
- **Sociology and Anthropology**
- **Theatre Arts**
- **College of Nursing**
  - **Nursing - MSN, DNP, & PhD**
- **College of Science**
  - **Biology**
  - **Chemistry & Biochemistry**
  - **Earth and Environmental Sciences**
  - **Interdisciplinary Science**
  - **Mathematics**
  - **Physics**
  - **Psychology**
- **School of Social Work**
  - **Social Work - MSSW & PhD**
- **School of Urban and Public Affairs**
  - **Public Administration**
  - **Urban and Public Affairs**
  - **City and Regional Planning**
- **Admissions Requirements & Procedures**
  - **Proposed Admissions Changes Effective August 2014**
- **General Information & Regulations**
  - **Board of Regents**
  - **Graduate School**
  - **Directory of UT Arlington Offices**
  - **Regulations**
  - **Tuition & Fees**
  - **Financial Aid**
  - **Student Services**
- **Graduate Calendar**
- **Graduate Faculty**
- **Index**

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Index

[A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#)

### A

- [Academic Calendar](#) – all mentions >>
- [Academic Counseling](#) – all mentions >>
- [Academic Dishonesty](#) – all mentions >>
- [Academic Fresh Start](#) – all mentions >>
- [Accounting](#) – all mentions >>
- [Accreditation, UT Arlington](#) – all mentions >>
- [Adding and Dropping Courses](#) – all mentions >>
- [Administration, UT Arlington](#) – all mentions >>
- [Admission](#) – all mentions >>
  - [Calculation of Grade Point Average](#) – all mentions >>
  - [Deferred](#) – all mentions >>
  - [Denied](#) – all mentions >>
  - [Documentation Requirements](#) – all mentions >>
  - [Graduate Student Advisement](#) – all mentions >>
  - [International Students](#) – all mentions >>
  - [Outstanding Undergraduates](#) – all mentions >>
  - [Procedures, Admissions](#) – all mentions >>
  - [Readmission](#) – all mentions >>
  - [Registration Schedule](#) – all mentions >>
  - [Resident Alien Students](#) – all mentions >>
  - [Restrictions on Admission](#) – all mentions >>
    - [Faculty](#) – all mentions >>
    - [General](#) – all mentions >>
  - [Special Programs](#) – all mentions >>
  - [Test Information](#) – all mentions >>
  - [Types of Admission](#) – all mentions >>
    - [Probationary](#) – all mentions >>
    - [Provisional](#) – all mentions >>

- **Unconditional** – all mentions >>
- **United States Students** – all mentions >>
- **Advanced Degree Programs, Administration of** – all mentions >>
- **Advanced Degrees and Requirements** – all mentions >>
- **Advisement** – all mentions >>
- **Advisors, Graduate** – all mentions >>
- **Aerospace Engineering, Mechanical and** – all mentions >>
- **Anthropology** – all mentions >>
- **Application Evaluation Charges** – all mentions >>
  - **International** – all mentions >>
  - **U.S.** – all mentions >>
- **Application Materials, Retention of** – all mentions >>
- **Architecture, School of** – all mentions >>
  - **Architecture, Program in** – all mentions >>
  - **Landscape Architecture, Program in** – all mentions >>
- **Archival Administration Certificate** – all mentions >>
- **Art + Art History** – all mentions >>
- **Assessment Services** – all mentions >>
- **Assistantship/Associateship Policy** – all mentions >>
- **Audit of a Student's Schedule and Fee Audit Adjustments** – all mentions >>
- **Auditing Courses** – all mentions >>

## **B**

- **Bacterial Meningitis** – all mentions >>
- **Bilingual Education Center** – all mentions >>
- **Biochemistry** – all mentions >>
- **Biology** – all mentions >>
- **Bioengineering** – all mentions >>
- **Board of Regents, UT System** – all mentions >>
- **Bursar Services** – all mentions >>
- **Business, College of** – all mentions >>
  - **Accounting** – all mentions >>
  - **Business Administration, M.B.A. Program** – all mentions >>
  - **Business Administration, Ph.D. Program** – all mentions >>
  - **Economics** – all mentions >>
  - **Finance and Real Estate** – all mentions >>
  - **Health Care Administration** – all mentions >>
  - **Information Systems and Operations Management** – all mentions >>
  - **Management** – all mentions >>
  - **Marketing** – all mentions >>

## C

- [Calendar](#) – all mentions >>
- [Campus Facilities, Use of](#) – all mentions >>
- [Campus Recreation](#) – all mentions >>
- [Campus Solicitations](#) – all mentions >>
- [Campus Security](#) – all mentions >>
- [Candidacy](#) – all mentions >>
  - [Doctoral Degree](#) – all mentions >>
  - [Master's Degree](#) – all mentions >>
- [Career Development](#) – all mentions >>
- [Career Services](#) – all mentions >>
- [Center for Bilingual Education](#) – all mentions >>
- [Center for Criminal Justice Research and Training](#) – all mentions >>
- [Center for Distance Education](#) – all mentions >>
- [Center for Hispanic Studies in Nursing and Health](#) – all mentions >>
- [Center for Mexican American Studies \(CMAS\)](#) – all mentions >>
- [Center for Multicultural Cooperation \(CMC\)](#) – all mentions >>
- [Center for Nursing Scholarship and Technology](#) – all mentions >>
- [Center for Post-Soviet and East European Studies](#) – all mentions >>
- [Center for Psychopharmacology Education and Research](#) – all mentions >>
- [Center for Science Education](#) – all mentions >>  
See also [College of Education and Health Professions](#).
- [Certificates Offered](#) – all mentions >>
- [Certified Public Management Program](#) – all mentions >>
- [Changing Courses](#) – all mentions >>
- [Change of Graduate Major or Program](#) – all mentions >>
- [Cheating](#) – all mentions >>
- [Check Cashing Policy](#) – all mentions >>
- [Checks, Returned](#) – all mentions >>
- [Chemistry and Biochemistry](#) – all mentions >>
- [City and Regional Planning](#) – all mentions >>
- [Civil Engineering](#) – all mentions >>
- [CMC](#) – all mentions >>  
See [Center for Multicultural Cooperation](#).
- [Code of Honor](#) – all mentions >>  
See [Honor Code](#).
- [College of Business](#) – all mentions >>
  - [Accounting](#) – all mentions >>
  - [Business Administration, M.B.A. Program](#) – all mentions >>
  - [Business Administration, Ph.D. Program](#) – all mentions >>
  - [Economics](#) – all mentions >>
  - [Finance and Real Estate](#) – all mentions >>

all mentions >>

- **Health Care Administration** –
- **Information Systems and Operations Management** – all mentions >>
- **Management** – all mentions >>
- **Marketing** – all mentions >>
- **College of Education and Health Professions** – all mentions >>
  - **Curriculum and Instruction** – all mentions >>
  - **Educational Leadership and Policy Studies** – all mentions >>
  - **Kinesiology** – all mentions >>
- **College of Engineering** – all mentions >>
  - **Bioengineering** – all mentions >>
  - **Civil and Environmental Engineering** – all mentions >>
  - **Computer Science and Engineering** – all mentions >>
  - **Electrical Engineering** – all mentions >>
  - **Industrial and Manufacturing Systems Engineering** – all mentions >>
  - **Materials Science and Engineering** – all mentions >>
  - **Mechanical and Aerospace Engineering** – all mentions >>
- **College of Liberal Arts** – all mentions >>
  - **Art + Art History** – all mentions >>
  - **Communication** – all mentions >>
  - **Criminology and Criminal Justice** – all mentions >>
  - **English** – all mentions >>
  - **History** – all mentions >>
  - **Linguistics** – all mentions >>
  - **Modern Languages** – all mentions >>
  - **Music** – all mentions >>
  - **Philosophy and Humanities** – all mentions >>
  - **Political Science** – all mentions >>
  - **Sociology and Anthropology** – all mentions >>
  - **Theatre Arts** – all mentions >>
- **College of Nursing** – all mentions >>
- **College of Science** – all mentions >>
  - **Biology** – all mentions >>
  - **Chemistry and Biochemistry** – all mentions >>
  - **Earth and Environmental Sciences** – all mentions >>
  - **Interdisciplinary Science** – all mentions >>
  - **Mathematics** – all mentions >>
  - **Physics** – all mentions >>
  - **Psychology** – all mentions >>
- **Committees on Graduate Studies** – all mentions >>
- **Committees, Supervising for Master's** – all mentions >>
- **Communication** – all mentions >>
- **Computer Science and Engineering** – all mentions >>

- [Concurrent Enrollment](#) – all mentions >>
- [Conduct and Discipline](#) – all mentions >>
- [Consensual Relationships Policy](#) – all mentions >>
- [Correspondence Courses](#) – all mentions >>
- [Counseling, Academic](#) – all mentions >>
- [Counseling, Financial](#) – all mentions >>
- [Counseling, Personal](#) – all mentions >>
- [Counseling Services](#) – all mentions >>
- [Course Auditing](#) – all mentions >>
- [Course Changes](#) – all mentions >>
- [Course Designation System](#) – all mentions >>
- [Course Load](#) – all mentions >>
- [Course Descriptions](#) – all mentions >>  
*See individual program descriptions.*
- [Course Transfer Credit](#) – all mentions >>
- [Course Withdrawal](#) – all mentions >>
- [Courses, General](#) – all mentions >>
  - [Applicability to More than One Degree](#) – all mentions >>
  - [Auditing](#) – all mentions >>
  - [Changes](#) – all mentions >>
  - [Correspondence](#) – all mentions >>
  - [Designation System](#) – all mentions >>
  - [Drops and Adds](#) – all mentions >>
  - [Enrollment by Undergraduate with Bachelor's Degree](#) – all mentions >>
  - [Extension](#) – all mentions >>
  - [Grade Requirements](#) – all mentions >>
  - [Load](#) – all mentions >>
  - [Reservation for Graduate Credit](#) – all mentions >>
  - [Transfer Credit](#) – all mentions >>
  - [Withdrawal](#) – all mentions >>
- [Credit, Course](#) – all mentions >>
- [Credit by Examination](#) – all mentions >>
- [Credit, Transfer](#) – all mentions >>
- [Criminology and Criminal Justice](#) – all mentions >>

## D

- [Dallas/Fort Worth Metroplex](#) – all mentions >>
- [Deadlines, Graduate School](#) – all mentions >>
- [Deans, Academic](#) – all mentions >>
- [Deferred Admission](#) – all mentions >>
- [Degree Requirements](#) – all mentions >>  
*See [Master's Degree Requirements](#), [Doctoral Degree Requirements](#) or individual program descriptions.*

- **Degree Plans, Master's** – all mentions >>  
*See also individual program descriptions.*
- **Denied Admission** – all mentions >>
- **Developmental English Program** – all mentions >>
- **Development Review Certificate** – all mentions >>
- **Diplomas** – all mentions >>
- **Directory of Offices** – all mentions >>
- **Disclaimer** – all mentions >>
- **Discipline, Student** – all mentions >>
- **Dissertations** – all mentions >>
- **Distance Learning Charges** – all mentions >>
- **Doctoral Degrees Offered** – all mentions >>
- **Doctoral Degree Requirements** – all mentions >>
  - **Candidacy** – all mentions >>
  - **Comprehensive Examination** – all mentions >>
  - **Credit for, Registration** – all mentions >>
  - **Diagnostic Evaluation** – all mentions >>
  - **Dissertation** – all mentions >>
  - **Dissertation Defense** – all mentions >>
  - **Dissertation Requirements** – all mentions >>
  - **Foreign Language Requirement** – all mentions >>
  - **General** – all mentions >>
  - **Graduate Program Degree Requirements** – all mentions >>
  - **Manuals for Students** – all mentions >>
  - **Registration in Doctoral Courses** – all mentions >>
  - **Residence** – all mentions >>
  - **Time Limit** – all mentions >>
- **Dropping Courses** – all mentions >>
- **Dual Degree Programs** – all mentions >>

## E

- **Earth & Environmental Sciences** – all mentions >>
- **Economics** – all mentions >>
- **Education and Health Professions, College of** – all mentions >>
  - **Curriculum and Instruction** – all mentions >>
  - **Educational Leadership and Policy Studies** – all mentions >>
  - **Kinesiology** – all mentions >>
- **Educational Records Policy** – all mentions >>
- **Electrical Engineering** – all mentions >>
- **Emissions Inspections** – all mentions >>
- **Engineering, College of** – all mentions >>

all mentions >>



- [Bioengineering](#) –
- [Civil and Environmental Engineering](#) – all mentions >>
- [Computer Science and Engineering](#) – all mentions >>
- [Electrical Engineering](#) – all mentions >>
- [Industrial and Manufacturing Systems Engineering](#) – all mentions >>
- [Materials Science and Engineering](#) – all mentions >>
- [Mechanical and Aerospace Engineering](#) – all mentions >>
- [English](#) – all mentions >>
- [English Proficiency](#) – all mentions >>
- [English Skills Program, Graduate](#) – all mentions >>
- [Enrollment, Concurrent](#) – all mentions >>
- [Enrollment Loans](#) – all mentions >>
- [Enrollment by Undergraduate with Bachelor's Degree](#) – all mentions >>
- [Environmental Science and Engineering, Graduate Studies in](#) – all mentions >>
- [Environmental Science Certificate](#) – all mentions >>
- [Equal Opportunity Policy](#) – all mentions >>
- Examinations
  - [Doctoral](#) – all mentions >>
  - [Master's](#) – all mentions >>
- *See also individual program descriptions.*
- [Exercise, Sport and Health Studies](#) – all mentions >>  
*See [Kinesiology](#).*
- [Expenses](#) – all mentions >>  
*See [Tuition & Fees](#).*
- [Extension Work](#) – all mentions >>

## F

- [Facilities, Campus](#) – all mentions >>
- [Faculty, Graduate](#) – all mentions >>
- [Family Educational Rights and Privacy Act \(FERPA\)](#) – all mentions >>
- [Federal Perkins Loan](#) – all mentions >>
- [Federal Stafford Loan](#) – all mentions >>
- [Federal Work-Study Program](#) – all mentions >>
- [Fees and Charges](#) – all mentions >>
- [Final Semester Requirements](#) – all mentions >>
- [Finance and Real Estate](#) – all mentions >>
- [Financial Aid](#) – all mentions >>
  - [Assistance Based on Need](#) – all mentions >>
  - [Federal Perkins Loan](#) – all mentions >>
  - [Federal Stafford Loan](#) – all mentions >>
  - [Federal Work-Study](#) – all mentions >>
  - [Financial Counseling](#) – all mentions >>

- [Out-of-State Student Assistance](#) – all mentions >>
- [Veterans' Assistance](#) – all mentions >>
- [Foreign Country Transcripts or Marksheets and Diplomas](#) – all mentions >>
- [Foreign Language Requirement, Master's Degree](#) – all mentions >>
- [Foreign Language Requirement, Ph.D.](#) – all mentions >>
- [Fort Worth Center](#) – all mentions >>
- [French](#) – all mentions >>
- [Fresh Start, Academic](#) – all mentions >>

## G

- [Geographic Information Systems Certificate](#) – all mentions >>
- [Geographic Information Systems Certificate in Spatial Information Systems](#) – all mentions >>
- [German](#) – all mentions >>
- [Good Standing, Academic](#) – all mentions >>
- [Grade-Point Average](#) – all mentions >>
  - [Calculation for Admission](#) – all mentions >>
  - [Academic Probation](#) – all mentions >>
  - [Graduation](#) – all mentions >>
- [Grades](#) – all mentions >>
  - [Credit for Research, Internship, Thesis, Dissertation](#) – all mentions >>
  - [Grievances](#) – all mentions >>
  - ["R" Grade](#) – all mentions >>
  - [Graduate Advanced Studies Certificate](#) – all mentions >>
  - [Graduate Advisors](#) – all mentions >>
  - [Graduate Assistantship/Associateship Policy](#) – all mentions >>
  - [Additional Employment](#) – all mentions >>
  - [Admission Status](#) – all mentions >>
  - [Assignment of Duties](#) – all mentions >>
  - [Continuation or Renewal](#) – all mentions >>
  - [Course Load](#) – all mentions >>
  - [Developmental English Program](#) – all mentions >>
  - [English Proficiency](#) – all mentions >>
  - [Tuition Rates](#) – all mentions >>
- [Graduate English Skills Program](#) – all mentions >>
- [Graduate Faculty](#) – all mentions >>
  - [Waiver of the Graduate Record Examination](#) – all mentions >>
- [Graduate School](#) – all mentions >>
  - [Administrative Officers](#) – all mentions >>
  - [History and Overview](#) – all mentions >>
  - [Mission and Philosophy](#) – all mentions >>
  - [Web Site](#)

- [Graduate School Deadlines](#) – all mentions >>
- [Graduate School Regulations, General](#) – all mentions >>
- [Graduate Studies in Environmental Science and Environmental Engineering](#) – all mentions >>
- [Graduation Procedures](#) – all mentions >>
- [Graduation Rates](#) – all mentions >>
- [Graduation Requirements](#) – all mentions >>
- [Grievances Other than Grades](#) – all mentions >>
- [Grievances Related to Grades](#) – all mentions >>

## H

- [Hazardous Materials and Waste Management Certificate](#) – all mentions >>
- [Hazing](#) – all mentions >>
- [Health Care Administration](#) – all mentions >>
- [Health Insurance](#) – all mentions >>
  - [International Student](#) – all mentions >>
- [Health Services, Student](#) – all mentions >>
- [Hepatitis B](#) – all mentions >>
- [History](#) – all mentions >>
- [HIV Testing](#) – all mentions >>
- [Honor Code](#) – all mentions >>
- [Housing](#) – all mentions >>
- [Human Resource Management](#) – all mentions >>
- [Humanities Program](#) – all mentions >>

## I

- [In Absentia Registration](#) – all mentions >>
- [In Absentia Registration Fee](#) – all mentions >>
- [Incomplete Grade Policy](#) – all mentions >>
- [Industrial and Manufacturing Systems Engineering](#) – all mentions >>
- [Information Systems](#) – all mentions >>
- [Installment Payment Option](#) – all mentions >>
- [Intercampus Programs](#) – all mentions >>
  - [Environmental Science and Engineering](#) – all mentions >>
  - [Logistics](#) – all mentions >>
  - [Engineering Management](#) – all mentions >>
  - [Materials Science and Engineering](#) – all mentions >>
- [International Students](#) – all mentions >>
  - [Admission](#) – all mentions >>
  - [Application Evaluation Charge](#) – all mentions >>
  - [Health Insurance](#) – all mentions >>

[Calculation of Grade Point Average for Admission](#) – all mentions >>

- [Orientation](#) – all mentions >>
- [Registration](#) – all mentions >>
- [Service Charge](#) – all mentions >>
- [Intramural Sports](#) – all mentions >>

## K

- [Kinesiology](#) – all mentions >>

## L

- [Landscape Architecture](#) – all mentions >>
- [Late Registration Charge](#) – all mentions >>
- [Law and Public Policy Certificate](#) – all mentions >>
- [Liberal Arts, College of](#) – all mentions >>
  - [Art + Art History](#) – all mentions >>
  - [Communication](#) – all mentions >>
  - [Criminology and Criminal Justice](#) – all mentions >>
  - [English](#) – all mentions >>
  - [History](#) – all mentions >>
  - [Linguistics](#) – all mentions >>
  - [Modern Languages](#) – all mentions >>
  - [Music](#) – all mentions >>
  - [Philosophy and Humanities](#) – all mentions >>
  - [Political Science](#) – all mentions >>
  - [Sociology and Anthropology](#) – all mentions >>
  - [Theatre Arts](#) – all mentions >>
- [Linguistics](#) – all mentions >>
- [Living Accommodations](#) – all mentions >>  
*See [Housing](#).*
- [Loans](#) – all mentions >>
- [Logistics](#) – all mentions >>

## M

- [M.B.A. Program](#) – all mentions >>
  - [Accelerated M.B.A.](#) – all mentions >>
  - [Executive M.B.A.](#) – all mentions >>
  - [Online M.B.A.](#) – all mentions >>
- [Management](#) – all mentions >>
- [Engineering Management](#) – all mentions >>
- [Manufacturing Systems Engineering](#) – all mentions >>

- [Maps](#) – all mentions >>
- [Marketing Research](#) – all mentions >>
- [Marksheets](#) – all mentions >>
- [Master of Arts](#) – all mentions >>
- [Master's Degree Plans](#), Available (thesis, thesis substitute, non-thesis) – all mentions >>  
*See also individual program descriptions.*
- Master's Degree
  - [Candidacy](#) – all mentions >>
  - [Degree Plans](#) (thesis, thesis substitute, non-thesis) – all mentions >>
  - [Final Examination](#) – all mentions >>
  - [Foreign Language Requirement](#) – all mentions >>
  - [Graduate Program Degree Requirements](#) – all mentions >>
  - [Hours Required](#) – all mentions >>
  - [Manuals for Students](#) – all mentions >>
  - [Requirements, General](#) – all mentions >>
  - [Residence](#) – all mentions >>
  - [Supervising Committees](#) – all mentions >>
  - [Thesis](#) – all mentions >>
    - [Credit for Thesis](#) – all mentions >>
  - [Time Limit](#) – all mentions >>
  - [Undergraduate Preparation](#) – all mentions >>
- [Master's Degrees Offered](#) – all mentions >>
- [Materials Science and Engineering](#) – all mentions >>
- [Mathematical Sciences](#) – all mentions >>
- [Mathematics](#) – all mentions >>
- [Mav Express Card](#) – all mentions >>
- [Maverick Parking Garage](#) – all mentions >>
- [Mechanical and Aerospace Engineering](#) – all mentions >>
- [Minority Mentor Project](#) – all mentions >>
- [Mission Statement, UT Arlington](#) – all mentions >>
- [Modern Languages](#) – all mentions >>
  - [French](#) – all mentions >>
  - [Spanish](#) – all mentions >>
- [Multicultural Cooperation, Center for \(CMC\)](#) – all mentions >>
- [Multicultural Services](#) – all mentions >>
- [Music](#) – all mentions >>

## N

- [Non-Resident Tuition](#) – all mentions >>
- Non-Thesis Degree Plan – all mentions >>
  - [Degree Plans & Hours Required](#) – all mentions >>

[all mentions >>](#)

**Final Master's Examination** –

- **Nursing Certificates**
  - **Master's** – all mentions >>
  - **Post-Master's** – all mentions >>
- **Nursing, College of** – all mentions >>

**O**

- **Office for Students with Disabilities** – all mentions >>
- **Office of International Education** – all mentions >>
- **Office of Research and Graduate Studies** – all mentions >>  
*See **Graduate School**.*
- **Offices, Directory of** – all mentions >>
- **Official Transcripts, Marksheets, Diplomas and Test Scores** – all mentions >>
- **Operations Management** – all mentions >>
- **Orientation, International Students** – all mentions >>
- **Out-of-State Student Assistance** – all mentions >>

**P**

- **Parking Permit Charge** – all mentions >>
- **Parking Garage** – all mentions >>
- **Peer Education** – all mentions >>
- **Perkins Loan** – all mentions >>
- **Personal Counseling** – all mentions >>
- **Petitions** – all mentions >>
- **Petroleum Geoscience Certificate** – all mentions >>
- **Ph.D. Degrees Offered** – all mentions >>
- **Ph.D. Degree Requirements** – all mentions >>
  - **Candidacy** – all mentions >>
  - **Comprehensive Examination** – all mentions >>
  - **Diagnostic Evaluation** – all mentions >>
  - **Dissertation** – all mentions >>
  - **Dissertation Defense** – all mentions >>
  - **Dissertation Requirements** – all mentions >>
  - **Foreign Language Requirement** – all mentions >>
  - **General** – all mentions >>
  - **Manuals for Students** – all mentions >>
  - **Registration in Doctoral Courses** – all mentions >>
  - **Residence** – all mentions >>
  - **Time Limit** – all mentions >>
  - **Philosophy and Humanities** – all mentions >>
- **Physical Education** – all mentions >>

See *Kinesiology*.

- [Physics](#) – all mentions >>
- [Plagiarism](#) – all mentions >>
- [Political Science](#) – all mentions >>
- [Probation, Academic](#) – all mentions >>
- [Probationary Admission](#) – all mentions >>
- [Professional Teacher Education](#) – all mentions >>  
See *College of Education and Health Professions*.
- [Provisional Admission](#) – all mentions >>
- [Program Manuals](#) – all mentions >>
  - [Master's](#) – all mentions >>
  - [Doctoral](#) – all mentions >>
- [Psychology](#) – all mentions >>
- [Public Administration](#) – all mentions >>

## Q

- [QUEST Wellness Program](#) – all mentions >>

## R

- ["R" Grade](#) – all mentions >>
- [Readmission](#) – all mentions >>
- [Real Estate](#) – all mentions >>  
See *Finance and Real Estate*.
- [Real Estate Development Graduate Certificate](#) – all mentions >>
- [Records Policy, Student](#) – all mentions >>
- [Records Retention](#) – all mentions >>  
See *Retention of Application Materials*.
- [Recreational Sports](#) – all mentions >>  
See *Campus Recreation*.
- [Refunds](#) – all mentions >>
- [Refunds, Disbursement of](#) – all mentions >>
- [Regents, Board of](#) – all mentions >>
- [Registration](#) – all mentions >>
  - [In Absentia](#) – all mentions >>
  - [International Students](#) – all mentions >>
  - [Late Charge](#) – all mentions >>
  - [Schedule](#) – all mentions >>
- [Regulations, General Graduate School](#) – all mentions >>
- [Required Fees](#) – all mentions >>
- [Requirements for the Doctor of Philosophy Degree](#) – all mentions >>
- [Requirements for Final Semester](#) – all mentions >>
- [Requirements for the Master's Degree](#) – all mentions >>

- [Reservation of Courses for Graduate Credit](#) – all mentions >>
- [Residency, Doctoral Degree Candidates](#) – all mentions >>
- [Residency, Master's Degree Candidates](#) – all mentions >>
- [Residency Regulations](#) – all mentions >>
  - [Resident Alien Students, Admission](#) – all mentions >>
  - [Calculation of Grade Point Average](#) – all mentions >>
- [Resident Tuition](#) – all mentions >>
- [Restrictions on Admission](#) – all mentions >>
- [Retention of Application Materials](#) – all mentions >>
- [Returned Checks](#) – all mentions >>
- [Right-to-Know Act, Student](#) – all mentions >>

## S

- [Schedule Audit](#) – all mentions >>
- [School of Architecture](#) – all mentions >>
  - [Architecture, Program in](#) – all mentions >>
  - [Landscape Architecture, Program in](#) – all mentions >>
- [School of Social Work](#) – all mentions >>
  - [Doctor of Philosophy](#) – all mentions >>
  - [Master of Science](#) – all mentions >>
- [School of Urban and Public Affairs](#) – all mentions >>
  - [Public Administration](#) – all mentions >>
  - [Urban and Public Affairs](#) – all mentions >>
  - [City and Regional Planning](#) – all mentions >>
- [Science, College of](#) – all mentions >>
  - [Biology](#) – all mentions >>
  - [Chemistry and Biochemistry](#) – all mentions >>
  - [Earth and Environmental Sciences](#) – all mentions >>
  - [Interdisciplinary Science](#) – all mentions >>
  - [Mathematics](#) – all mentions >>
  - [Physics](#) – all mentions >>
  - [Psychology](#) – all mentions >>
- [Science Education Center](#) – all mentions >>
- [Security, Campus](#) – all mentions >>
- [Selective Service Registration](#) – all mentions >>
- [Sexual Harassment Policy](#) – all mentions >>
- [Sexual Misconduct](#) – all mentions >>
- [Social Work, School of](#) – all mentions >>
  - [Doctor of Philosophy](#) – all mentions >>
  - [Master of Science](#) – all mentions >>
- [Sociology](#) – all mentions >>



- [Solicitations, Campus](#) – all mentions >>
- [Southern Association of Colleges and Schools \(SACS\)](#) – all mentions >>
- [Spanish](#) – all mentions >>
- [Spatial Information Systems Certificate](#) – all mentions >>
- [SPEAK Examination](#) – all mentions >>
  - [Developmental English Program](#) – all mentions >>
  - [Assistanships](#) – all mentions >>
- [Special Admissions Programs](#) – all mentions >>
- [Sport Clubs](#) – all mentions >>
- [Stafford Loan](#) – all mentions >>
- [Student Conduct and Discipline](#) – all mentions >>
- [Student Educational Records Policy](#) – all mentions >>
- [Student Employment Services](#) – all mentions >>
- [Student Health Services](#) – all mentions >>  
See [Health Services](#).
- [Student Right-to-Know and Campus Security Act](#) – all mentions >>
- [Student Responsibility](#) – all mentions >>
- [Student Services](#) – all mentions >>
- [Student Travel Policy](#) – all mentions >>
- [Summary of Graduate Tuition, Fees, and Charges](#) – all mentions >>
- [Supervising Committees, Master's](#) – all mentions >>
- [Systems Engineering](#) – all mentions >>

## T

- [Taxation, Certificate in](#) – all mentions >>
- [Taxation, Master of Science](#) – all mentions >>
- [Teacher Education](#) – all mentions >>  
See [College of Education and Health Professions](#).
- [Teaching English to Speakers of Other Languages Certificate](#) – all mentions >>
- [TeleCampus, UT](#) – all mentions >>
- [Test Information](#) – all mentions >>
- [Test Score Reports](#) – all mentions >>
- [Testing Services](#) – all mentions >>  
See [Assessment Services](#).
- [Theatre Arts](#) – all mentions >>
- [Thesis and Dissertation Manual of Style](#) – all mentions >>  
See [Thesis; Dissertations](#).
- [Thesis and Dissertation Registration Requirements and Credit](#) – all mentions >>
- [Thesis](#) – all mentions >>
- [Thesis Degree Plans](#) – all mentions >>
  - [Degree Plans & Hours Required](#) – all mentions >>
  - [Final Master's Examination](#) – all mentions >>
- [Thesis Substitute Degree Plan](#) – all mentions >>

- [Degree Plans & Hours Required](#) – all mentions >>
- [Final Master's Examination](#) – all mentions >>
- [Time Limits, Thesis and Dissertation](#) – all mentions >>
  - [Master's](#) – all mentions >>
  - [Doctoral](#) – all mentions >>
- [Title IV Funds](#) – all mentions >>
- [Transfer Credit](#) – all mentions >>
- [Transcripts](#) – all mentions >>
- [Travel Policy, Student](#) – all mentions >>
- [Tuition, Fees, and Charges](#) – all mentions >>
  - [International Student Health Insurance](#) – all mentions >>
  - [Mav Express Card Charge](#) – all mentions >>
  - [Maverick Parking Garage](#) – all mentions >>
  - [Parking Decal Charge](#) – all mentions >>
- [Tuition, Fee, and Charge Exemptions](#) – all mentions >>

## U

- [Unconditional Admission](#) – all mentions >>
- [University of Texas at Arlington](#) – all mentions >>
  - [Accreditation](#) – all mentions >>
  - [Administrative Officers of Academic Units](#) – all mentions >>
  - [Executive Officers](#) – all mentions >>
  - [Government](#) – all mentions >>
  - [Mission Statement](#) – all mentions >>
- [University of Texas System](#) – all mentions >>
  - [Administration](#) – all mentions >>
  - [Board of Regents](#) – all mentions >>
- [Urban Affairs, M.A. Program](#) – all mentions >>
- [Urban and Public Administration, Ph.D. Program](#) – all mentions >>
- [Urban and Public Affairs, School of](#) – all mentions >>
  - [Public Administration](#) – all mentions >>
  - [Urban and Public Affairs](#) – all mentions >>
  - [City and Regional Planning](#) – all mentions >>
- [Urban Journalism Certificate](#) – all mentions >>
- [Urban Nonprofit Management Certificate](#) – all mentions >>
- [UT TeleCampus](#) – all mentions >>
- [UT Arlington/Fort Worth Campus](#) – all mentions >>

## V

- [Vehicle Emissions Inspections](#) – all mentions >>

- [Veterans' Assistance](#) – [all mentions >>](#)

## W

- [Wellness Program, QUEST](#) – [all mentions >>](#)
- [Withdrawal from Classes](#) – [all mentions >>](#)
  - [Withdrawal](#) – [all mentions >>](#)
  - [Disbursement of Refunds](#) – [all mentions >>](#)
- [Work-Study Program](#) – [all mentions >>](#)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2012-2013 Graduate Catalog

[Home](#)
[Degree Requirements](#)
[Fields of Study](#)
[Admissions Requirements & Procedures](#)
[General Information & Regulations](#)
[Graduate Calendar](#)
[Graduate Faculty](#)
[Table of Contents](#)
[Index](#)

## UT Arlington Honor Code

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will only submit work that I personally create or contribute to group collaborations, and reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

The University of Texas at Arlington Online Graduate Catalog is the official version of our catalog, and takes precedence over any printed version of the catalog. This catalog was published in July of 2012, and it supercedes the [2011-2012 Graduate Catalog](#). Students are governed by the catalog under which they were enrolled or, at a student's option, the catalog of any subsequent year in which that student was in residence. Please refer to our [Graduation Requirements and Procedures](#) for more information.

This catalog is a general information electronic publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees, rules, calendars, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled.

Students are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt students from whatever penalties they may incur.

Many departments and programs issue program manuals, procedures and policy manuals, graduate student handbooks and other informational publications for students and faculty in graduate programs. These publications provide detailed and useful information; however, they are not statements of official policy of The University of Texas at Arlington or of The University of Texas System. In all matters, the Rules and Regulations of the Board of Regents of The University of Texas System, the Handbook of Operating Procedures of The University of Texas at Arlington, and the Graduate Catalog of The University of Texas at Arlington shall supersede departmental, program or college publications.

Many of our [previous catalogs](#) are still available online. Catalogs that are no longer online are still available through the [University Archives](#). Please contact the [University Archivist](#) for more information.

Published in July of 2012. This catalog supercedes the [2011-2012 Graduate Catalog](#).

The University of Texas at Arlington [Office of Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone 817.272.2688 | Fax 817.272.1494  
 ©2012 [The University of Texas at Arlington](#)

**You're connected to Internet, please refresh your page.**



# OFFICE OF GRADUATE STUDIES AT UT ARLINGTON



DISSERTATION COMPLETION RESOURCES

WORKSHOPS AND PROGRAMS

DS-PRO

FORMS AND PROCESSES FOR FACULTY/STAFF

FUNDING RESOURCES

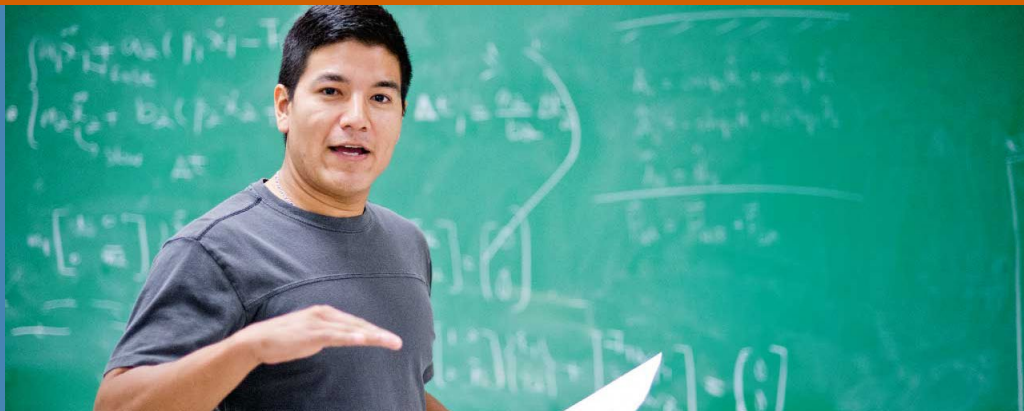
PROGRAM REVIEW

THESIS & DISSERTATION MANUAL

UNIVERSITY CATALOG

ACES ARCHIVES

ADMISSIONS/GRADUATION/COMMENCEMENT



*“As a member of the Graduate Student Senate, I have had the opportunity to meet other graduate students from various areas of study. This has produced a new network of people that I can connect with after graduate school.”*

**Adrian Rodriguez, Ph.D. (Mechanical Engineering)**

The Office of Graduate Studies is here to help develop students' potential for research, scholarship, creative expression, and professional success. To this end, we foster knowledge and professional skills, prepare graduate students for roles as thought-leaders, and promote the interests of our students and graduate education.

[Read more about our mission >](#)

## THE LATEST

### Funding Resources Website

Check out our new [website for graduate student funding](#). It contains information about internal funding sources, links to external funding sources, and tips on searching for funding.

Take a look at this video for more information:



## GRADUATE RESOURCES

### Graduate Advisors List

[Click here for a list of Graduate Advisors.](#)

### Gradsense

Find advice on budgeting, student loans, transitioning out of graduate school, in addition to evaluating and negotiating a job offer. This online resource, designed to inform graduate students about financial issues, is



### Thesis and Dissertation Manual

[Click here to access the Thesis and Dissertation Manual.](#)

[Click here to access graduation resources.](#)

[Click here to access the workshop document.](#)

available thanks to a collaboration between the Council of Graduate Schools and TIAA-CREF. [Click here for more information.](#)

### Online Career Resource

Interested in finding a career that uses the skills you learned in graduate school? Not sure what careers you are qualified to apply for? Take a look at The Versatile PhD for ideas. This online resource provides you with a career finder that helps you discover new opportunities and learn how to shape your resume for careers you might not have considered.

Take a look at The [Versatile PhD](#) to start exploring careers. If you've never registered for the site [click here to register](#) through the UT Arlington membership.

### Thesis/Dissertation Resources

Visit the [Resources for Graduation](#) page and find information that will keep you on track to graduate, including directions on how to submit your thesis/dissertation.





**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

Get Connected:

[Mav Grad Blog](#)

[Graduate Advisor Network](#)

[Facebook](#)

[Twitter](#)





## OFFICE OF GRADUATE STUDIES AT UT ARLINGTON



## About Us

The Office of Graduate Studies is administratively located in the Office of the Vice President for Research.

The goal of graduate study is to develop a student's potential for original research, scholarship, creative expression, and professional success. It actively involves creative and scholarly pursuits that foster knowledge and professional skills and prepares graduate students for roles as thought-leaders and stewards of their disciplines and professions.

The mission of the Office of Graduate Studies is to foster rigorous inquiry, discovery, innovation, and the spirit of creative scholarship by promoting university-wide standards of excellence and equity in graduate education. The Office is committed to assuring that graduate study at UT Arlington meets the highest academic, ethical, and professional standards. As an advocate for excellence and equity, the Office of Graduate Studies promotes the interests of graduate students and graduate education in departmental, university, state, and national arenas. It highlights and encourages adoption of best practices to promote student academic and professional success. Additionally, the Office of Graduate Studies reviews and develops graduate policies in collaboration with the graduate faculty as well as regularly assessing graduate programs to promote continuous improvement.

### History and Overview

The Office of Graduate Studies, and a graduate faculty of more than 400, partner in creating high standards for academic accomplishment and in achieving an intellectual environment of the highest

quality for the University community.

The first graduate programs at The University of Texas at Arlington began in 1966 with the initiation of six master's degree programs. Doctoral degree programs were launched in 1969 with a Ph.D. in engineering. Today the University offers master's degrees in 71 disciplines or interdisciplinary programs and 30 doctoral degree programs.

## SECTION MENU

[About Us](#)

[Contact Us](#)

## RELATED LINKS

[Campus Maps](#)

[Colleges and Schools](#)

[Mav Grad Blog](#)

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

[Mav Grad Blog](#)

[Graduate Advisor Network](#)

[Facebook](#)

[Twitter](#)



## Search

### RELATED LINKS

[Search UT Arlington](#)

[A-Z Index](#)

[Find People](#)

[Maps](#)

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**



CURRENT STUDENTS

## Workshops and Programs

This page lists all of the workshops and programs that are available for graduate students to help them with their academic and professional development. Please contact us at [graduate.studies@uta.edu](mailto:graduate.studies@uta.edu) if you are interested in a specific workshop that is not listed in any of these series.

To view a PDF of our Spring 2018 Workshops and Programs brochure, click [here](#). For more detailed information, please navigate through the series below.

---

## Workshops and Programs to help you in Graduate School

- **Data and Digital Tools:** Do you work with data? Do you want to reach a larger public with your scholarship? Click on this link to find workshops that introduce digital tools that will enhance your career.
- **Graduation Resources:** Are you planning to graduate soon? Take a look at the workshops and resources that are available to help you graduate on-time.
- **Dissertation Completion Resources:** Working on your dissertation? Click on this link for all the resources that are designed to help you complete your doctoral degree.
- **Navigating Graduate School Series:** Want to take the right steps to maneuver through graduate school successfully? Click on the link to see the workshops we offer that will help you learn the skills necessary to excel.
- **Online Workshops:** Click on this link for online workshops that you can access at any time. This list is constantly being updated, so check back for new online workshops.

- **Thesis/Dissertation Series:** Working on your thesis/dissertation and need some help with motivation, formatting, and/or writing? Click on the link to see the workshops we offer to help you through the final stage of your graduate education.

---

## Career Workshops and Resources

- **Career Advancement Series:** Interested in resources that will prepare you for your future? Click on this link to see the latest offerings of workshops and resources that help you advance in your academic and professional career.
- **Future Faculty Series:** Current Graduate Teaching Assistants and graduate students seeking to improve their teaching skills will be exposed to best practices from experts in the field.
- **Online Career Resources:** These resources are designed to help you explore career possibilities, find a career, apply for the position, and get the job. Click on the link to take advantage of these resources and all its benefits.

---

## Research Workshops and Programs

- **I Engage Program/Mentoring Workshops:** This program provides funding to doctoral students in order to gain teaching and mentoring experience as a research mentor to a UT Arlington undergraduate. The program also includes a series of workshops that help graduate students learn how to mentor effectively. Click on the link for more information.
- **Dissertation Research Enhancement Grant** - The purpose of this grant is to provide funding to support dissertation research of the highest quality. The funds are to be used in order to advance understanding, skills or provide resources that are not available through existing University assets. Proposed activities or resources must be directly related to a student's dissertation.
- **Research/Grant Workshop Series** - Are you interested in conducting original research? Want to find grants to apply for in order to fund your research? Click on the link for a series of workshops focused on research and grants.
- **Responsible Conduct of Research (RCR) Institute:** Led by the UT Arlington RCR Workgroup, the RCR Institute offers educational programming and a certification program to support the efforts by departmental and individual faculty members to provide RCR training to graduate and undergraduate

students involved in research.

- **Center for the Integration of Research, Teaching and Learning (CIRTL):** a National Science Foundation program that focuses on doctoral students improving STEM undergraduate education with research principles. Click on the link for more information.

## RELATED LINKS

[Academic Calendar](#)

[Financial Aid](#)

[Graduation](#)

[Mav Grad Blog](#)

[University Catalog](#)

## DISSERTATION LAB: MAY 31-JUNE 1, 2018

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**



FACULTY AND STAFF

## Graduate Advisor Resources

### Grad Advisor Resources At-A-Glance

#### [Advisor In-Person Training Spring 2018](#)

~~Subs and Waivers~~

~~March 6, 12:30-1:30pm~~

~~The Graduate Advisor's Guide to OIE Forms~~

~~April 3, 12:30-1:30 p.m.~~

[DS-PRO](#)

[MyMav Training](#)

[Advising Resources](#)

[Graduate Advisor Tutorials](#)

---

## Grad Advisor In-Person Training Spring 2018

---

### Grad Advisor Training: Subs and Waivers

This is a training session for graduate advisors presented by Tammy Shoemaker, Assistant Registrar, on Subs and Waivers. A light lunch will be served for registered participants.

**This event has already occurred. Please check back for more opportunities.**

---

### Grad Advisor Training: The Graduate Advisor's Guide to OIE Forms

This is a training session for graduate advisors presented by the Office of International Education on forms commonly used by international graduate students. A light lunch will be served to registered participants.

**This event has already occurred. Please check back for more opportunities.**

---

## DS-PRO

DS-PRO (the Doctoral Student Progress Report Online) is an online tool that allows doctoral students and professors at UT Arlington to collaboratively set goals, then monitor and report on their progress toward those goals. Users of DS-PRO create a concrete, permanent record of expectations and intentions, providing a kind of roadmap that guides a student along the path leading toward a degree. While DS-PRO is an online “advisement” system, in-person interaction between students and advisors may be of considerable help in completing DS-PRO tasks in a manner satisfactory to both. The system is not intended to be a substitute for face-to-face interaction or to reduce the importance or necessity of ongoing dialog. At a minimum, the contents of DS-PRO may encourage, inform and permanently record key elements of these discussions. Please see the [DS-PRO Overview](#) (PDF) for more information.

[Start using DS-PRO](#)

---

## MyMav Training

As an advisor, you will most likely need to use [MyMav](#), the University’s student information system. All the pertinent information about a student, including demographic data, registration, grades, financial aid, tuition and fees, and degree plan requirements is housed in MyMav. (The [MyMav Tutorials for Faculty](#) page provides guidance for new users.)

You will need to get access to areas not necessarily needed by other faculty members. To get access to the areas of MyMav necessary for advisors, your Department Chair should contact the [OIT Help Desk](#) on your behalf to request access to the screens necessary for advising. Also, make sure to attend GMAP training.

---

## Advising Resources

Other resources for advisors include the following:

- [Advising videos from the Office of International Education \(CPT and OPT\)](#)
- [Other Graduate Advisors](#) (One of the best resources is the knowledge of your peers!)
- [Graduate Catalog](#)
- [Graduate Faculty Membership](#)
- [Information for Faculty/Staff regarding PhD requirements](#)
- [University Handbook of Operating Procedures](#)



## SECTION MENU

### Graduate Advisor Resources

[Thesis and Dissertation Forms](#)

[Forms for Doctoral Students](#)

[Forms for Master's Students](#)

[Graduate Advisor Tutorials](#)

## RELATED LINKS

[DS PRO](#)

[Graduate Advisors List](#)

[Mav Grad Blog](#)

[Thesis and Dissertation](#)

[University Catalog](#)

**CONGRATULATIONS, DR. BEVERLY BLACK!**

**2017-2018  
Excellence in Doctoral Student  
Mentoring Award Winner**



**Beverly Black**

Jillian Michelle Smith Professor in Family Violence  
Research

School of Social Work

*Congratulations!*



UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

Get Connected:

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**





## FACULTY AND STAFF

# Forms and Processes for Faculty and Staff

Here are some links that will provide you with specific information about some graduate student policies and direct you to the correct offices to contact with any questions you may have. Not finding what you need? Send us an email, we'll be glad to help.

- [Current Graduate Operational Processes and Responsible Administrative Units](#)
- [Forms for Faculty and Staff](#)
  - [Facilitated Admission Form](#)
  - [Forms for Doctoral Students](#)
  - [Forms for Master's Students](#)
- [How to Submit Graduate Student Petitions](#)

## Catalog Changes

- [Catalog Editing Guide](#)
- [Course Inventory Management Guide \(Add, Change, Delete Courses\)](#)

## Acquiring Graduate Faculty Status

- [Certification of Credentials Form](#)

- [Department Chair Justification Checklist for Faculty Credentials](#)
- [Faculty Credential Manual](#)

## SECTION MENU

### Faculty and Staff

[Academic Program Review](#)

[Excellence in Doctoral Student Mentoring Award](#)

[Dissertation Fellowship Selection Process and Application Form](#)

[Forms and Processes for Faculty and Staff](#)

[Graduate Advisor Resources](#)

[Graduate Assembly](#)

[Graduate Curriculum and Catalog Changes](#)

[Graduate Faculty Membership](#)

[Proposing New Graduate Programs or Certificates](#)

[The University of Texas at Arlington - Online Catalog](#)

## RELATED LINKS

[Graduate Advisors Blog](#)

[Graduate Advisors List](#)

[Mav Grad Blog](#)

[University Catalog](#)

**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**



## FACULTY AND STAFF

## Academic Program Review

The University of Texas System requires that all academic programs be reviewed regularly to evaluate their quality and their effectiveness in supporting the University's mission. Program reviews evaluate the teaching, student learning, research, and service activities of each academic program on a regular schedule, and are used to advise the UT Arlington administration of ways in which the program can be made more effective. It is the University of Texas at Arlington's policy that all undergraduate and graduate programs be subject to regularly scheduled rigorous external review, either by external accrediting agencies or through the processes described in the [Program Review Manual](#). The [Academic Program Review Schedule](#) lists dates on which the Texas Higher Education Coordinating Board expects each department's graduate programs to be reviewed. The departments' undergraduate programs are to be reviewed when their graduate programs are reviewed unless the undergraduate reviews are conducted on a different schedule as required by an external accrediting agency.

Click on the following links for more information about the academic program review.

- [Academic Program Review Schedule](#)
- [Program Review Manual](#)
- [List of Peer and Aspirational Peer Universities](#)

### SECTION MENU

[Faculty and Staff](#)

[Academic Program Review](#)

[Excellence in Doctoral Student Mentoring Award](#)

[Dissertation Fellowship Selection Process and Application Form](#)

[Forms and Processes for Faculty and Staff](#)

[Graduate Advisor Resources](#)

[Graduate Assembly](#)

[Graduate Curriculum and Catalog Changes](#)

[Graduate Faculty Membership](#)

[Proposing New Graduate Programs or Certificates](#)

[The University of Texas at Arlington - Online Catalog](#)

## RELATED LINKS

[DS PRO](#)

[Graduate Advisors Blog](#)

[Graduate Advisors List](#)

[Mav Grad Blog](#)

[Thesis and Dissertation](#)

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**





## FACULTY AND STAFF

# The University of Texas at Arlington - Online Catalog

The University of Texas at Arlington Online Catalog is the official catalog of the University. The current Catalog contains information for all students. Separate Catalogs for graduate and undergraduate students no longer exist. By default, students are governed by the rules of the catalog in effect when they enrolled. However students can also opt to be governed by the rules of any subsequent catalog taking effect while they are in residence. See the [Degree Requirements for Graduate Programs](#) of the [University Catalog](#) for general information about graduate theses and other requirements.

### **Using the Online Catalog:**

To find information related to graduate study in the Catalog, use the navigation on the left side of the page to go to content areas of the Catalog. After going to a particular content area, links on the right side of the page or links embedded in the text will describe and connect users to specific subjects. Tabs at the top of many pages in the Catalog in addition to links on the pages themselves allow users to go directly to material related to graduate studies.

To obtain information about a specific graduate degree program, use the navigation provided on the left of the screen to go to the College or School in which the program is located and select the appropriate department from the list appearing on the left of the page.

### [University Catalog](#)

[Archives of Earlier Catalogs](#): Use this link to examine previously published Catalogs online.

The University of Texas at Arlington Online Graduate Catalog is the official version and takes precedence over any printed version of the catalog.

Catalogs that are no longer online are still available through the [University Archives](#). Please contact the [University Archivist](#) for more information.

The catalog is a general information electronic publication only. It is not intended to nor does it contain all regulations that relate to students. The provisions of this catalog do not constitute a contract, express or implied, between any applicant, student or faculty member and The University of Texas at Arlington or The University of Texas System. The University reserves the right to withdraw courses at any time, change fees, rules, calendars, curriculum, degree programs, degree requirements, graduation procedures and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to both prospective students and those already enrolled.

You are held individually responsible for complying with all requirements of the rules and regulations of the University and the Board of Regents of The University of Texas System. Failure to read and comply with policies, regulations and procedures will not exempt you from whatever penalties you might incur.

## SECTION MENU

### [Faculty and Staff](#)

[Academic Program Review](#)

[Excellence in Doctoral Student Mentoring Award](#)

[Dissertation Fellowship Selection Process and Application Form](#)

[Forms and Processes for Faculty and Staff](#)

[Graduate Advisor Resources](#)

[Graduate Assembly](#)

[Graduate Curriculum and Catalog Changes](#)

[Graduate Faculty Membership](#)

[Proposing New Graduate Programs or Certificates](#)

[The University of Texas at Arlington - Online Catalog](#)

## RELATED LINKS

[DS PRO](#)

[Graduate Advisors Blog](#)

---

[Graduate Advisors List](#)

---

[Mav Grad Blog](#)

---

[Thesis and Dissertation](#)

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**



**CURRENT STUDENTS**  
**ACES Archives**

On this page you will find links to the past ACES Symposiums. Click on the date that you are interested in viewing.

---

[ACES 2017](#)

[ACES 2009](#)

[ACES 2016](#)

[ACES 2008](#)

[ACES 2015](#)

[ACES 2007](#)

[ACES 2014](#)

[ACES 2006](#)

[ACES 2013](#)

[ACES 2005](#)

[ACES 2012](#)

[ACES 2004](#)

[ACES 2011](#)

[ACES 2003](#)

[ACES 2010](#)

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**

# GRADUATE STUDENTS

REQUEST INFO

APPLY TODAY

ENROLL

## Graduate Advisors

[Architecture, Planning & Public Affairs](#) | [Business](#) | [Education](#) | [Engineering](#)  
| [Liberal Arts](#) | [Nursing & Health Innovation](#) | [Science](#) | [Social Work](#)

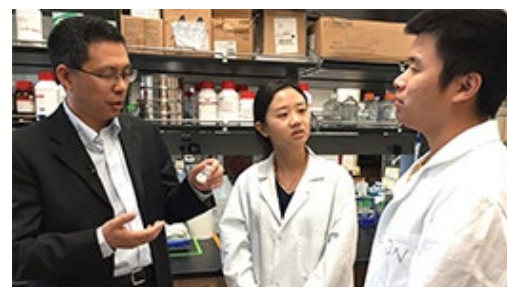
### COLLEGE OF ARCHITECTURE, PLANNING AND PUBLIC AFFAIRS

Architecture

Program	Advisor	Mail Box	Phone Number
Architecture, M.ARCH.	<a href="#">Ana Peredo-Manor</a>	19108	817-272-2801

Planning & Landscape Architecture

Program	Advisor	Mail Box	Phone Number
Landscape Architecture, M.L.A.	<a href="#">Ana Peredo-Manor</a>	19108	817-272-2801
City & Regional Planning, M.CIRP.	<a href="#">Shatavia Thomas</a>	19588	817-272-2801
Urban Planning & Public Policy, Ph.D.	<a href="#">Shatavia Thomas</a>	19588	817-272-2801
	<a href="#">Lyonne Audirac</a>	19588	817-272-2801



EXPLORE UTA

### PRESTIGIOUS RECOGNITION

Three assistant professors in UTA's College of Engineering received the National Science Foundation's most prestigious award for junior faculty.

[→ Read more](#)

Public Affairs

Program	Advisor	Mail Box	Phone Number
Public Administration, M.P.A.	<a href="#">Karolyn Field</a>	19108	817-272-2801
Urban Affairs & Policy, MUAP	<a href="#">Shatavia Thomas</a>	19108	817-272-2801
Public & Urban Administration, Ph.D.	<a href="#">Shatavia Thomas</a>	19108	817-272-2801
	<a href="#">Colleen Casey</a>	19108	817-272-2801

**COLLEGE OF BUSINESS**

Accounting

Program	Advisor	Mail Box	Phone Number
Accounting, M.S.	<a href="#">Cherie Henderson</a>	19468	817-272-3179
Professional Accounting, M.P.A.	<a href="#">Cherie Henderson</a>	19468	817-272-3179
Taxation, M.S.	<a href="#">Cherie Henderson</a>	19468	817-272-3179
Accounting, Ph.D.	<a href="#">Terry Skantz</a>	19468	817-272-3065
	<a href="#">Graduate Business Services</a>	19376	817-272-3004

Business Administration

Program	Advisor	Mail Box	Phone Number
Business Administration, M.B.A. (Flexible Format)	<a href="#">Brandon Swain</a>	19376	817-272-3004

Graduate Advisors – Admissions – The University of Texas at Arlington

Business Administration, M.B.A. (Professional Cohort)	<a href="#">Brandon Swain</a>	19376	817- 272- 3004
Business Administration, M.B.A. Non-Degree Seeking	<a href="#">Brandon Swain</a>	19376	817- 272- 3004
Executive M.B.A.	<a href="#">David Mack</a>	19377	817- 272- 3085
Graduate Advanced Studies Business Certificate	<a href="#">Brandon Swain</a>	19376	817- 272- 3004
Business Administration, Ph.D.	<a href="#">Wendy Casper</a>	19437	817- 272- 1133
	<a href="#">Graduate Business Services</a>	19376	817- 272- 3004

Economics

Program	Advisor	Mail Box	Phone Number
Economic Data Analytics, M.S.	<a href="#">Tim Wunder</a>	19479	817-272- 3257
	<a href="#">Graduate Business Services</a>	19376	817-272- 3004

Finance and Real Estate

Program	Advisor	Mail Box	Phone Number
Quantitative Finance, M.S.	<a href="#">John David Ditz</a>	19449	817-272- 2116
Real Estate, M.S.	<a href="#">Sriram Villupiram</a>	19449	817-272- 3705
Finance (Business Administration), Ph.D.	<a href="#">Sall Sarkar</a>	19449	817-272- 3836



[Graduate](#) 19376 817-272-  
[Business Services](#) 3004

Health Care Administration

Program	Advisor	Mail Box	Phone Number
Health Care Administration, M.S.	<a href="#">Demetria Wilhite</a>	19467	817-272-0698
	<a href="#">Graduate Business Services</a>	19376	817-272-3004

Information Systems & Operations Management

Program	Advisor	Mail Box	Phone Number
Business Analytics, M.S.	<a href="#">Carolyn Davis</a>	19437	817-272-7399
Information Systems, M.S.	<a href="#">Carolyn Davis</a>	19437	817-272-7399
Information Systems (Business Administration), Ph.D.	<a href="#">Radha Mahapatra</a>	19437	817-272-3590
Management Science/Operations Management, Ph.D.	<a href="#">Kay Yut Chen</a>	19437	817-272-3556
	<a href="#">Graduate Business Services</a>	19376	817-272-3004

Management

Program	Advisor	Mail Box	Phone Number
---------	---------	----------	--------------

Human Resource Management, M.S.	<a href="#">Dennis Veit</a>	19467	817-272-3865
Management (Business Administration), Ph.D.	<a href="#">Myrtle Bell</a>	19467	817-272-3857
	<a href="#">Graduate Business Services</a>	19376	817-272-3004

Marketing

Program	Advisor	Mail Box	Phone Number
Marketing Research, M.S.	<a href="#">Scott Hanson</a>	19469	817-272-2340
Marketing (Business Administration), Ph.D.	<a href="#">Ritesh Saini</a>	19469	817-272-0221
	<a href="#">Graduate Business Services</a>	19376	817-272-3004

**COLLEGE OF EDUCATION**

Educational Curriculum & Instruction

Program	Advisor	Mail Box	Phone Number
Ed. Curriculum & Instruction, M.Ed.	<a href="#">Teaira Little</a>	19026	
	<a href="#">Joyce Myers</a>	19026	
Mind, Brain and Education, M.Ed. Non Thesis	<a href="#">Marc Schwartz</a>	19545	817-272-5641
School Counselor Certificate	<a href="#">Mary Crow</a>	19227	817-272-3339

Educational Leadership and Policy Studies

		Mail	Phone
--	--	------	-------

Program	Advisor	Box	Number
Ed. Leadership & Policy Studies (K-16), Ph.D.	<a href="#">Casey</a> <a href="#">Brown</a>	19227	817-272- 0149
Ed. Leadership & Policy Studies, M.Ed.	<a href="#">Ernest</a> <a href="#">Johnson</a>	19575	817-272- 2531

## COLLEGE OF ENGINEERING

### Bioengineering

Program	Advisor	Mail Box	Phone Number
Biomedical Engineering, M.S.	<a href="#">George</a> <a href="#">Alexandrakis</a>	19138	817-272- 3496
Biomedical Engineering, Ph.D.	<a href="#">George</a> <a href="#">Alexandrakis</a>	19138	817-272- 3496

### Civil Engineering

Program	Advisor	Mail Box	Phone Number
Civil Engineering, M.Engr.	<a href="#">Ernest</a> <a href="#">Crosby</a>	19308	817-272- 3500
Civil Engineering, M.Engr. Fast Track	<a href="#">Ernest</a> <a href="#">Crosby</a>	19308	817-272- 3500
Civil Engineering, M.S.	<a href="#">Ernest</a> <a href="#">Crosby</a>	19308	817-272- 3500
Civil Engineering, Non-Degree Seeking	<a href="#">Ernest</a> <a href="#">Crosby</a>	19308	817-272- 3500
Civil Engineering, Ph.D.	<a href="#">Ernest</a> <a href="#">Crosby</a>	19308	817-272- 3500

### Computer Science and Engineering

Program	Advisor	Mail Box	Phone Number
Computer Engineering, B.S. to Ph.D.	<a href="#">Ginger</a> <a href="#">Dickens</a>	19015	817-272- 3619
	<a href="#">Bahram Khalili</a>	19015	817-272-

5407

Computer Engineering, M.S.	<a href="#">Sha'Londa Towns</a>	19015	817-272-6785
	<a href="#">Sajib Datta</a>	19015	817-272-0770
	<a href="#">Bahram Khalili</a>	19015	817-272-5407
Computer Engineering, Ph.D.	<a href="#">Ginger Dickens</a>	19015	817-272-3619
	<a href="#">Bahram Khalili</a>	19015	817-272-5407
Computer Science, B.S. to Ph.D.	<a href="#">Ginger Dickens</a>	19015	817-272-3619
	<a href="#">Bahram Khalili</a>	19015	817-272-5407
Computer Science, M.S.	<a href="#">Sha'Londa Towns</a>	19015	817-272-6785
	<a href="#">Sajib Datta</a>	19015	817-272-0770
	<a href="#">Bahram Khalili</a>	19015	817-272-5407
Computer Science, Ph.D.	<a href="#">Ginger Dickens</a>	19015	817-272-3619
	<a href="#">Bahram Khalili</a>	19015	817-272-5407
Software Engineering, M.SWEN.	<a href="#">Sha'Londa Towns</a>	19015	817-272-6785
	<a href="#">Sajib Datta</a>	19015	817-272-0770
	<a href="#">Bahram Khalili</a>	19015	817-272-5407

Electrical Engineering

Program	Advisor	Mail Box	Phone Number
---------	---------	----------	--------------

Electrical Engineering, M.Engr. Non Thesis	<a href="#">W Alan Davis</a>	19016	817-272-3495
Electrical Engineering, M.S.	<a href="#">W Alan Davis</a>	19016	817-272-3495
	<a href="#">William E Dillon</a>	19016	817-272-5720
Electrical Engineering, Ph.D.	<a href="#">W Alan Davis</a>	19016	817-272-3495
	<a href="#">William E Dillon</a>	19016	817-272-5720

Industrial and Manufacturing Systems Engineering

Program	Advisor	Mail Box	Phone Number
Engineering Management, M.S.	<a href="#">Donald Liles</a>	19017	817-272-3160
Industrial Engineering, M.Engr.	<a href="#">Aera Leboulluec</a>	19017	817-272-3167
Industrial Engineering, M.S.	<a href="#">Aera Leboulluec</a>	19017	817-272-3167
Industrial Engineering, Ph.D.	<a href="#">Sheik Imrhan</a>	19017	817-272-3167
Logistics, M.S.	<a href="#">Erick Jones</a>	19017	817-272-7592
Systems Engineering, M.S.	<a href="#">Donald Liles</a>	19017	817-272-3160

Materials Science and Engineering

Program	Advisor	Mail Box	Phone Number
Materials Science and Engineering, M.Engr.	<a href="#">Seong Jin Koh</a>	19031	817-272-1223
Materials Science and Engineering, M.S.	<a href="#">Seong Jin Koh</a>	19031	817-272-1223

Materials Science and Engineering, Ph.D.	<a href="#">Seong Jin Koh</a>	19031	817-272-1223
--	-------------------------------	-------	--------------

Mechanical & Aerospace Engineering

Program	Advisor	Mail Box	Phone Number
Aerospace Engineering, B.S. to Ph.D.	<a href="#">Atilla Dogan</a>	19018	817-272-3744
Aerospace Engineering, M.Engr.	<a href="#">Atilla Dogan</a>	19018	817-272-3744
Aerospace Engineering, M.S.	<a href="#">Atilla Dogan</a>	19018	817-272-3744
Aerospace Engineering, Ph.D.	<a href="#">Atilla Dogan</a>	19018	817-272-3744
Mechanical Engineering, M.Engr.	<a href="#">Seichi Nomura</a>	19023	817-272-2012
Mechanical Engineering, M.S.	<a href="#">Seichi Nomura</a>	19023	817-272-2012
Mechanical Engineering, Ph.D.	<a href="#">Seichi Nomura</a>	19023	817-272-2012

**COLLEGE OF LIBERAL ARTS**

Art + Art History

Program	Advisor	Mail Box	Phone Number
Art, M.F.A.	<a href="#">Nancy Palmeri</a>	19089	817-272-2891

Communication

Program	Advisor	Mail Box	Phone Number
Communications, M.A.	<a href="#">Thomas Christie</a>	19107	817-272-5599

## Criminology &amp; Criminal Justice

Program	Advisor	Mail Box	Phone Number
Criminology and Criminal Justice, M.A.	<a href="#">Jayla Davis</a>	19595	817-272-9398
	<a href="#">John Rodriguez</a>	19595	817-272-0742

## English

Program	Advisor	Mail Box	Phone Number
English, M.A.	<a href="#">Neill Matheson</a>	19035	817-272-2692
English, Ph.D.	<a href="#">Neill Matheson</a>	19035	817-272-2692

## History

Program	Advisor	Mail Box	Phone Number
History, M.A.	<a href="#">Stephanie Cole</a>	19529	817-272-2868
Transatlantic History, Ph.D.	<a href="#">Kenyon Zimmer</a>	19529	817-272-0685

## Linguistics

Program	Advisor	Mail Box	Phone Number
Linguistics, M.A.	<a href="#">Joseph Sabbagh</a>	19559	817-272-3133
Linguistics, Ph.D.	<a href="#">Jeffrey Witzel</a>	19559	817-272-3133
Teaching English to Speakers of Other Languages, M.A.	<a href="#">Qynthia Kilpatrick</a>	19559	817-272-5334

Modern Languages

Program	Advisor	Mail Box	Phone Number
Modern Languages, M.A.	<a href="#">Amy Austin</a>	19557	817-272-3161

Music

Program	Advisor	Mail Box	Phone Number
Music Performance, M.M. Thesis	<a href="#">Clifton Evans</a>	19105	817-272-3471
Music, M.M.	<a href="#">Clifton Evans</a>	19105	817-272-3471

Philosophy and Humanities

Program	Advisor	Mail Box	Phone Number
Humanities, M.A.	<a href="#">Susan Hekman</a>	19539	817-272-3982

Political Science

Program	Advisor	Mail Box	Phone Number
Political Science, M.A.	<a href="#">Brent Sasley</a>	19539	817-272-2991

Sociology and Anthropology

Program	Advisor	Mail Box	Phone Number
Anthropology, M.A.	<a href="#">Josephine Ryan</a>	19599	817-272-3797
Sociology, M.A. Thesis	<a href="#">Heather Jacobson</a>	19599	817-272-1282

**COLLEGE OF NURSING AND HEALTH INNOVATION**



Nursing

Program	Advisor	Mail Box	Phone Number
Accelerated Online Nurse Practitioner, M.S.N.	<a href="mailto:msnadvising@uta.edu">msnadvising@uta.edu</a>	19407	817-272-2776
Accelerated Online Nursing Education, M.S.N.	<a href="mailto:msnadvising@uta.edu">msnadvising@uta.edu</a>	19407	817-272-2776
Accelerated Online Nursing Administration, M.S.N.	<a href="mailto:msnadvising@uta.edu">msnadvising@uta.edu</a>	19407	817-272-2776
Doctor of Nursing Practice, D.N.P.	<a href="mailto:dnp@uta.edu">dnp@uta.edu</a>	19407	817-272-2776
Campus Based Nurse Practitioner, M.S.N.	<a href="mailto:msnadvising@uta.edu">msnadvising@uta.edu</a>	19407	817-272-2776
Nursing Educator, B.S.N. to Ph.D.	<a href="#">Vivian Lail-Davis</a>	19407	817-272-1038
Nursing, Clinical B.S.N. to Ph.D.	<a href="#">Vivian Lail-Davis</a>	19407	817-272-1038
Nursing, Ph.D.	<a href="#">Vivian Lail-Davis</a>	19407	817-272-1038

Kinesiology

Program	Advisor	Mail Box	Phone Number
Athletic Training, M.S. Non Thesis	<a href="#">Paul Krawietz</a>	19259	817-272-7290
Exercise Science, M.S.	<a href="#">Mark Ricard</a>	19259	817-272-0764

## COLLEGE OF SCIENCE

## Biology

Program	Advisor	Mail Box	Phone Number
Biology, M.S.	<a href="#">Paul Chippindale</a>	19498	817-272-2703
	<a href="#">Shawn Christensen</a>	19498	817-272-0520
	<a href="#">Michael Roner</a>	19498	817-272-1302
Quantitative Biology, B.S to Ph.D.	<a href="#">Paul Chippindale</a>	19498	817-272-2703
	<a href="#">Shawn Christensen</a>	19498	817-272-0520
	<a href="#">Michael Roner</a>	19498	817-272-1302
Quantitative Biology, Ph.D.	<a href="#">Paul Chippindale</a>	19498	817-272-2703
	<a href="#">Shawn Christensen</a>	19498	817-272-0520
	<a href="#">Michael Roner</a>	19498	817-272-1302

## Chemistry &amp; Biochemistry

Program	Advisor	Mail Box	Phone Number
Chemistry, B.S. to Ph.D.	<a href="#">Frank Foss</a>	19065	817-272-3814
Chemistry, M.S.	<a href="#">Frank Foss</a>	19065	817-272-3814
Chemistry, Ph.D.	<a href="#">Frank Foss</a>	19065	817-272-3814

## Earth and Environmental Sciences

Program	Advisor	Mail Box	Phone Number
Earth and Environmental Science /	<a href="#">Andrew</a>	19049	817-272-

Geology, M.S.	<a href="#">Hunt</a>		0437
	<a href="#">John Wickham</a>	19049	817-272-3332
Earth and Environmental Science, Ph.D.	<a href="#">Andrew Hunt</a>	19049	817-272-0437

Interdisciplinary Science

Program	Advisor	Mail Box	Phone Number
Interdisciplinary Science, M.A.	<a href="#">Gregory Hale</a>	19047	817-272-3807

Mathematics

Program	Advisor	Mail Box	Phone Number
Mathematical Sciences, Mathematics, Ph.D.	<a href="#">Hristo Kojouharov</a>	19408	817-272-5763
Mathematics (General Mathematics), B.S. to Ph.D.	<a href="#">Hristo Kojouharov</a>	19408	817-272-5763
Mathematics (General Mathematics), M.S.	<a href="#">Hristo Kojouharov</a>	19408	817-272-5763
Mathematics (General Mathematics), Ph.D.	<a href="#">Hristo Kojouharov</a>	19408	817-272-5763
Mathematics (General Statistics), B.S. to Ph.D.	<a href="#">Hristo Kojouharov</a>	19408	817-272-5763
Mathematics (General Statistics), M.S.	<a href="#">Hristo Kojouharov</a>	19408	817-272-5763
Mathematics (General Statistics), Ph.D.	<a href="#">Hristo Kojouharov</a>	19408	817-272-5763
Mathematics, M.A.	<a href="#">James Epperson</a>	19408	817-272-5047

Physics

--	--	--	--

Program	Advisor	Mail Box	Phone Number
Physics and Applied Physics, Ph.D.	<a href="#">Muhammad</a> <a href="#">Huda</a>	19059	817-272- 1097
Physics, M.S.	<a href="#">Qiming Zhang</a>	19059	817-272- 2020

## Psychology

Program	Advisor	Mail Box	Phone Number
Psychology, Experimental, Health, Ph.D.	<a href="#">Jared</a> <a href="#">Kenworthy</a>	19528	817-272- 0746
Psychology, Experimental, M.S.	<a href="#">Jared</a> <a href="#">Kenworthy</a>	19528	817-272- 0746
Psychology, Experimental, Ph.D.	<a href="#">Marta</a> <a href="#">Galvan</a>	19528	817-272- 5129
Psychology, Health/Neuroscience, M.S.	<a href="#">Marta</a> <a href="#">Galvan</a>	19528	817-272- 5129
	<a href="#">Yuan Peng</a>	19528	817-272- 5222
Psychology, Health/Neuroscience, Ph.D.	<a href="#">Marta</a> <a href="#">Galvan</a>	19528	817-272- 5129
	<a href="#">Yuan Peng</a>	19528	817-272- 5222
Psychology, Industrial and Organizational, M.S.	<a href="#">Marta</a> <a href="#">Galvan</a>	19528	817-272- 5129
	<a href="#">Paul Paulus</a>	19047	817-272- 3491

## SCHOOL OF SOCIAL WORK

## Social Work

Program	Advisor	Mail Box	Phone Number
Social Work, M.S.W.	<a href="#">Diane Mitschke</a>	19129	
Social Work, Ph.D.	<a href="#">Debra Woody</a>	19129	

## APPLY

Claim your place among the brightest minds working today.

[Take the next step >>](#)

## EVENTS & REMINDERS

Upcoming events for up-and-coming students.

[View our full list of events >>](#)

## FINANCIAL AID

More than half of our students receive financial aid.

[Learn more about scholarships, loans, and other aid >>](#)

### TAKE ACTION

Choose Your Degree Program

Check Application Status

Request Information

Ask A Question

Contact Admissions

Review Deadlines

### GRADUATE STUDENTS

Discover

Apply

Visit

Afford

Enroll

[Graduate Advisors](#)

CONNECT WITH US



CHAT OFFLINE.  
CLICK TO LEAVE A MESSAGE



[About Us](#)  
[Admissions](#)

[Student Life](#)  
[Giving](#)

© 2018 The University of Texas at Arlington

701 S. Nedderman Drive ¥ Arlington, TX 76019 ¥ 817-272-2011

[Academics](#)

[Athletics](#)

[Research](#)

[News Center](#)

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Institutional Resume](#)

[UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) | [Report Fraud](#)



The Home Of  
Endless Opportunities

[APPLY](#)

[VISIT](#)

[GIVE](#)

## Welcome to Maverick Country

Take a look at everything happening at UTA and you'll find opportunities just right for you.

[REQUEST INFO](#)

[MORE ABOUT UTA](#)

## Christine

Biology (Pre-Med)

“I chose UTA because it had everything I was looking for in a university.”



# **1** in Texas for Veterans  
*(Military Times, 2017)*

# **1** among national public universities for graduating students with the least debt *(U.S. News & World Report, 2018)*

# **5** in the nation for undergraduate diversity  
*(U.S. News & World Report, 2018)*

### MORE RANKINGS

## Go Further

With expert faculty and more than 180 rigorous degree programs, we can help you reach the future you want.

[SCHOOLS AND COLLEGES](#)

[ACADEMIC CALENDAR](#)

[COURSE CATALOG](#)



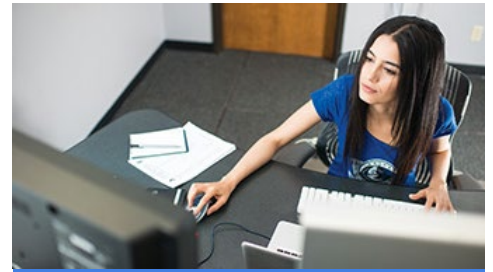
At every stage in your education, we put you in touch with the people and services that will help you achieve your goals.



Advising



Student Career Services



Financial Aid/Scholarships



A Community that Cares



Events Calendar



Tuition Information

**PARKING & SHUTTLES**  
**HELP CENTER**

**HOUSING**



## Latest Stories

[ALL NEWS](#)



## NSF Graduate Research Fellowship

UTA doctoral student Marquerite Herzog studies biological mechanisms linked to PTSD.

### NEWS

## Battling cardiovascular disease

UTA researchers investigate link between ovarian hormones and blood cholesterol levels

### NEWS

## Piper professor

Hullender named 2018 Minnie Stevens Piper professor

### PUBLICATIONS

## *UTA Magazine*

The spring issue features new and old haunts around campus, the Class of 2021, and more.

A Model 21st-Century Urban Research University, UTA is pushing the boundaries of knowledge on our ever-growing campus.



## Leading in Genomics

The new North Texas Genome Center provides massive genome sequencing capabilities for biotech and health research.

[Read More](#)



## The 21st-Century Urban Research University

See what our research means to us. And what our research means to the world.

[Research at UTA](#)



## Strategic Plan | 2020

This strategic plan sets a path to unprecedented excellence in research, teaching, and community engagement.

[The Plan](#)

# Your University. Your Future.

When it comes to producing ideas and growing talent, UTA is among the best in the nation. See how UTA can help you realize your dreams.

[APPLY TODAY](#)

[ADMISSIONS INFO](#)

[VISIT](#)



701 S. Nedderman Drive • Arlington, TX 76019 • 817-272-2011

[Academics](#)

[Athletics](#)

[Research](#)

[News Center](#)

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Report Sexual Misconduct](#)

[Institutional Resume](#) | [UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) |

[Report Fraud](#)





# OFFICE OF GRADUATE STUDIES AT UT ARLINGTON



DISSERTATION COMPLETION RESOURCES

WORKSHOPS AND PROGRAMS

DS-PRO

FORMS AND PROCESSES FOR FACULTY/STAFF

FUNDING RESOURCES

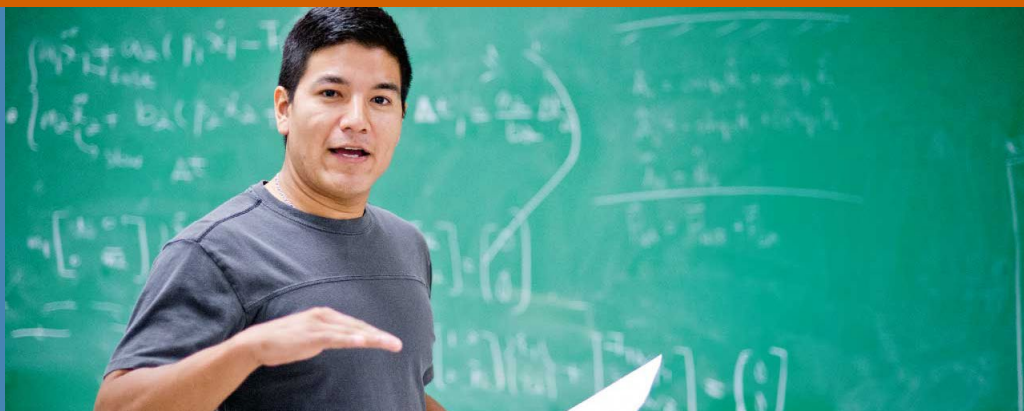
PROGRAM REVIEW

THESIS & DISSERTATION MANUAL

UNIVERSITY CATALOG

ACES ARCHIVES

ADMISSIONS/GRADUATION/COMMENCEMENT



*“As a member of the Graduate Student Senate, I have had the opportunity to meet other graduate students from various areas of study. This has produced a new network of people that I can connect with after graduate school.”*

**Adrian Rodriguez, Ph.D. (Mechanical Engineering)**

The Office of Graduate Studies is here to help develop students' potential for research, scholarship, creative expression, and professional success. To this end, we foster knowledge and professional skills, prepare graduate students for roles as thought-leaders, and promote the interests of our students and graduate education.

[Read more about our mission >](#)

## THE LATEST

### Funding Resources Website

Check out our new [website for graduate student funding](#). It contains information about internal funding sources, links to external funding sources, and tips on searching for funding.

Take a look at this video for more information:



## GRADUATE RESOURCES

### Graduate Advisors List

[Click here for a list of Graduate Advisors.](#)

### Gradsense

Find advice on budgeting, student loans, transitioning out of graduate school, in addition to evaluating and negotiating a job offer. This online resource, designed to inform graduate students about financial issues, is



### Thesis and Dissertation Manual

[Click here to access the Thesis and Dissertation Manual.](#)

[Click here to access graduation resources.](#)

[Click here to access the workshop document.](#)

available thanks to a collaboration between the Council of Graduate Schools and TIAA-CREF. [Click here for more information.](#)

### Online Career Resource

Interested in finding a career that uses the skills you learned in graduate school? Not sure what careers you are qualified to apply for? Take a look at The Versatile PhD for ideas. This online resource provides you with a career finder that helps you discover new opportunities and learn how to shape your resume for careers you might not have considered.

Take a look at The [Versatile PhD](#) to start exploring careers. If you've never registered for the site [click here to register](#) through the UT Arlington membership.

### Thesis/Dissertation Resources

Visit the [Resources for Graduation](#) page and find information that will keep you on track to graduate, including directions on how to submit your thesis/dissertation.





**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

Get Connected:

[Mav Grad Blog](#)

[Graduate Advisor Network](#)

[Facebook](#)

[Twitter](#)



RESOURCES AND FORMS FOR GRADUATE STUDENTS

## Resources for Graduation

### Graduation Resources

- [Academic Calendar](#)
- [Applying for Graduation](#)
- [Commencement](#)
- [Graduation Deadlines](#)
- [Graduation Checklist - Thesis and Dissertation](#)
- [Graduation Checklist - Non Thesis or Thesis Substitute](#)
- [Thesis and Dissertation General Information](#)
- [Thesis and Dissertation Manual](#)
- [Thesis and Dissertation Submission](#)

SECTION MENU

[Resources and Forms for Graduate Students](#)



[Resources for Graduate Students](#)

---

[Resources for Graduation](#)

---

[Resources for your Health/Life](#)

## RELATED LINKS

[Financial Aid](#)

---

[Academic Calendar](#)

---

[Graduation](#)

---

[Mav Grad Blog](#)

---

[University Catalog](#)

**The University of Texas at Arlington**

**Office of Graduate Studies**

348 **Davis Hall** | 701 S. Nedderman Drive

Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

**Mav Grad Blog**

**Graduate Advisor Network**

**Facebook**

**Twitter**



RESOURCES AND FORMS FOR GRADUATE STUDENTS

## Gradsense



[Gradsense](#) is a service offered through the Council of Graduate Schools' "Enhancing Student Financial Education" project, an effort in collaboration with TIAA-CREF to inform graduate students about financial issues. The GradSense tools and resources were developed for students as they plan for academic and professional career success. Click on any of the graphics on this page to be taken to the [gradsense website](#) and start planning your financial future today.

## Transitioning Out of Graduate School

### Financially

You have a diploma, a new job, and disposable income. Now what?

**33%** of U.S. adults do not pay their bills on time.

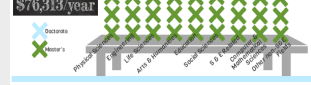
Although the student loan debt has surpassed \$1,000,000,000,000, 56% of U.S. adults admit they do not have a budget.

**Look at your debt.** The average cumulative student loan debt for graduate school alone among those graduating in 2011-12 was **\$34,000**.

**Educate yourself.** 42% of U.S. adults give themselves a grade of **C, D, or F** on their knowledge of personal finance.



**How much are you making?** This table shows 2010 median salaries of master's and doctorate recipients by field.



## Make the transition

**Make a budget** Get a control of your finances by determining your income, expenses, and goals (short- and long-term). Keeping track of your expenses will help you set entertainment costs and work towards your goals.

**Set up a student loan repayment plan** Log on to studentloans.gov to check your balance. Use the online calculator to estimate payments under each plan. Read contract information for your loan services and set up a plan that works for you.

**Set and work towards life goals** Want to travel? Plan on getting married? Buying a house? A car? Commit to saving money for both the goal and emergencies.

**Budgeting considerations and worksheets are available online. See sites such as mymoney.gov and mint.com.**

**Invest in your 401K** It's never too early to start saving and investing. Contributing to your company or individual retirement account can earn you a lot of money in the long run. Learn if your employer will match your contributions. Talk to your broker, credit union, employer, or financial advisor for personal advice to meet your savings goals.

**Avoid incurring additional credit card debt** Although it's sometimes necessary to borrow for major purchases like a car or house, be sure to keep your credit history strong. Paying your bills on full on time will help increase your credit score. You can check your credit score for free three times a year at [www.annualcreditreport.com](http://www.annualcreditreport.com).

**Sources:**  
 1. <http://www.annualcreditreport.com/annualcreditreport/2012/index.html>  
 2. [http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds\\_data\\_trends.php](http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds_data_trends.php)  
 3. <http://www.bls.gov/news.release/archives/mw20110901.pdf>  
 4. [http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds\\_data\\_trends.php](http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds_data_trends.php)  
 5. [http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds\\_data\\_trends.php](http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds_data_trends.php)

## REPAYING YOUR FEDERAL GRADUATE STUDENT LOAN

You have graduated or are below half-time enrollment. It's been 6 months, and it's time you have a better P.L.U.S. or Direct Unsubsidized loan to repay. Here's a guide to understanding your options.

### Choose a repayment plan

**Option 1** Standard Repayment Plan: A fixed monthly payment for up to 10 years.

**Option 2** Graduated Repayment Plan: Monthly payments that start out low and increase every two years for up to 10 years.

**Option 3** Extended Repayment Plan: Lower fixed or graduated monthly payments for up to 25 years.

**Option 4** Income-Based, Income-Contingent, and Income-Sensitive Repayment Plans: Monthly payments are adjusted to 10-15% of your discretionary income for up to 25 years.

### Weigh your options

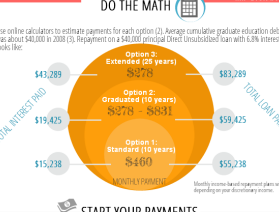
**How long should you take to pay it back?** This option has the most flexible terms, but the more interest you will pay. However, in some circumstances you may have to pay a higher percentage rate.

**Check your interest rate:** Interest rates for federal student loans are determined by federal law. After 7/1/13, an interest rate of 6.8% on the 10-year Treasury note plus 2.0% will be effective for undergraduate who completed their education before 10/1/12. Unsubsidized Direct Loans will have an interest rate of 6.8% for Direct PLUS loans 11/1/12.

**Check your principal:** This is your total loan amount. Use your PIN to log in to the Department's website to check what portion of loan you have, your interest rate, and the total amount of your loan.

### DIRECT CONSOLIDATION LOAN

You can change repayment plans at any time. Contact your loan servicer if you would like to discuss repayment plan options or change your plan. If you don't make your loan payments, your tax delinquency and default which carry severe consequences.



### START YOUR PAYMENTS

**Choose to pay automatically or manually** Once you have selected which repayment plan is right for you, contact your loan servicer to start payments (4). Choose from Automatic, Credit by Mail, or Credit by Debit.

**Paying by Mail** Paying manually by mail or online is more secure. But automatic payments, but it also saves the time of mailing a payment.

**Automatic debit** Setting up an automatic debit payment will keep you from missing payments, but it may if your card/bank is irregular.

**Additional Payments** Paying more than your monthly payment will help you get ahead and shorten your repayment period.

**Stay Informed** Keep track of your budget and interest rate. Get loan status updates. If you are having trouble making payments.

**Sources:**  
 1. <http://www.annualcreditreport.com/annualcreditreport/2012/index.html>  
 2. [http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds\\_data\\_trends.php](http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds_data_trends.php)  
 3. <http://www.bls.gov/news.release/archives/mw20110901.pdf>  
 4. [http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds\\_data\\_trends.php](http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds_data_trends.php)  
 5. [http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds\\_data\\_trends.php](http://nces.ed.gov/ipeds/data/ipedsdatatools/2012/ipeds_data_trends.php)

## Let COMPOUND INTEREST work for you

**What is interest?** Interest is the money you get paid for loaning money. When you put money in a savings account, you are essentially loaning your money to the bank in return for interest.

**Types of interest**  
**Simple** Simple interest is earned on the principal alone.  
**Compound** Compound interest is earned on the principal and on any interest the principal has earned.

**principal** A principal amount is the money initially deposited, without interest.

**How much can I save?**

- Buying a frozen pizza instead of 40-50¢ you can save you \$8 pizza. If you substitute frozen for delivery for just 30 pizzas a year, you save \$240!
- Having 2 drinks at home instead of 4 at a bar could save you \$2 a week. Over a year, that's more than \$100.
- Making a cup of coffee at home rather than buying from a cafe can save you \$10 a week. That's over \$500 a year!
- Eating out for lunch every day can add up. Making lunch at home can save about \$20 a week, making it \$1,000 a year!
- You could save over \$60 a month by cutting down on entertainment costs, such as DVD, game tickets, albums, and clothing purchases. That adds up to over \$800 a year.

After four years of frugal choices, you could save this amount on your 6% interest student loans:

🍕	\$1,080	\$11,835
🍷	\$4,690	\$51,390
☕	\$2,345	\$25,695
🍷	\$2,815	\$30,845
🍷	\$3,515	\$38,515

Use an online compound interest calculator to see how much you can make on your savings!

**Resources:**  
 1. [investor.gov](http://investor.gov)  
 2. [moneychimp.com/calculator/compound\\_interest\\_calculator.htm](http://moneychimp.com/calculator/compound_interest_calculator.htm)

## EVALUATING A JOB OFFER

Congratulations! You've got the offer! Below are some factors and questions to consider before you accept.

**SALARY**  
 What is the cost of living? Is your base salary at market level? Will you receive bonuses (e.g., signing or annual)? When will you be eligible for salary reviews and promotions?

**BASIC BENEFITS**  
 Will you receive medical, dental, and life insurance? How much will you contribute to insurance? Will you have access to retirement programs, stock options, pension plans? Is there short and long-term disability? How does vacation time accrue? Is sick leave "use it or lose it"?

**KEEP IN MIND**  
 In many cases, it's better to accept a higher salary in lieu of bonuses. For example, a salary of \$50,000/year is better than \$45,000/year with a \$5,000 signing bonus because your raise will be based on your salary not your bonus.

**ADDITIONAL BENEFITS**  
 Will you receive relocation expenses? Do they have flex time? Is there a tuition reimbursement plan? Are there professional development opportunities or other trainings?

**COMPANY**  
 Do company values match yours? Is the company image/reputation positive? What is the office environment? Will you thrive? What was your impression of employee morale? Is the company profitable? Financially stable? Is diversity valued?

**GET IT IN WRITING**  
 You cannot COUNTER an offer if you do not have it in writing. A verbal understanding is not binding.

Without written proof, you cannot verify the specifics of a job offer. Ask the employer to clarify misinformation in your offer letter.

Visit the Career Resource Center at your university/college for guidance on transitioning to the workforce!

**Sources:**  
 1. Jones Hopkins Bloomberg School of Public Health, Career Services, "Evaluating and Negotiating a Job Offer," <http://www.jhsph.edu/education/careerpage.html>  
 2. The University of Georgia Career Center, "After Athens: Life After UGA," <http://career.uga.edu/media/AfterAthens2013.pdf>

## NEGOTIATING A JOB OFFER

Understand some of the basics behind negotiating a job offer

### SALARY DISCUSSION

Happens early, usually during the interview

Often starts because the employer is trying to determine if they can afford you.

### 3 WAYS TO HANDLE SALARY DISCUSSION

1. State an acceptable salary range
2. State that you prefer to be compensated based on your experience.
3. Ask what an acceptable salary range is for the position.

### BEFORE YOU BEGIN NEGOTIATING:

Do you have a legitimate reason to negotiate?  
How do you plan on conducting the conversation?

Are your skills, experience, and education worth more than the offered amount? Do the research!  
Is the pay range less than the industry average?  
Does the salary reflect the cost of living in the area?  
Do you have multiple offers with similar compensation?

### WHO'S NEGOTIATING?

According to The Gender-able Compensation Survey 2016:  
<http://www.comptroller.com/resources/gender-able-survey-2016.pdf>

### THE PROCESS

1. Show your interest in the position. Research the job and see your skills match the position.

2. Build your case. Why are you negotiating the offer? (Cost of living? Market value? Why are you worth more?)

3. Based on the case you presented, ask the employer if they can provide more compensation.

4. When asked, state an acceptable salary range.

5. Explore creative solutions if necessary. Consider benefits, perks, signing bonuses, relocation expenses, etc.

Often, companies are not able to negotiate on salary. You may be able to negotiate other areas:

- Relocation expenses
- Vacation / sick time
- Telecommuting options
- Alternate work hours
- Start date

### THERE ARE RISKS TO NEGOTIATING

## KNOW WHEN TO STOP!

Visit the Career Resource Center at your college/university for help transitioning to the work force.

Additional info:  
 1. <http://www.uta.edu/gradstudies/admitted/resources/Gradsense.php>  
 2. <http://www.uta.edu/gradstudies/admitted/resources/Gradsense.php>  
 3. <http://www.uta.edu/gradstudies/admitted/resources/Gradsense.php>

## SECTION MENU

[Resources and Forms for Graduate Students](#)

[Resources for Graduate Students](#)

[Resources for Graduation](#)

[Resources for your Health/Life](#)

**The University of Texas at Arlington**  
**Office of Graduate Studies**

348 Davis Hall | 701 S. Nedderman Drive  
Box 19185, Arlington, TX 76019 USA | Phone: 817-272-5164

© The University of Texas at Arlington

**Get Connected:**

**Mav Grad Blog**


**Graduate Advisor Network**

**Facebook**

Twitter

# The versatile PhD

Helping graduate students and PhDs envision, prepare for, and excel in non-academic careers since 1999

 Existing Member Log In

Versatile PhD is the oldest, largest online community dedicated to non-academic and non-faculty careers for PhDs in humanities, social science and STEM. Over 85,000 have [joined](#) this site to...



## Discover interesting career paths

PhDs go many places. Our [PhD Career Finder](#) is an interactive tool that lists and describes non-academic careers for PhDs in your discipline, with suggestions for how to prepare - all from the PhD perspective.



## Consult the community

Our threaded discussion boards are well-populated with qualified, helpful people, some at your stage and others farther along. The Versatile PhD community is special because of its richness of experience, compassionate tone, and privacy - nothing shows up in Google.



## See job listings appropriate for PhDs

Members frequently post jobs that they feel are appropriate for PhDs and ABDs. The flow varies but seems to average about 50 jobs a month. Jobs can be viewed on the site or you can subscribe to email notifications of humanities/social science jobs, STEM jobs, or both.



## Network with successful PhDs nationwide

Our 85,000+ members across the US and Canada constitute a rich resource for networking. Use the searchable Membership Directory to identify possible contacts in employment sectors that interest you.



## Attend local meetups

Spending time with others in your situation relieves loneliness, develops relationships and can even help you get your post-academic career started. Local meetups happen across the US and Canada, organized by Versatile PhD volunteers.



## Why should you trust us?

Versatile PhD understands your situation, respects your privacy and sees your potential. We've been around since 1999 and we're in it for the long haul. We are a socially positive, woman-owned business founded by a PhD who remembers exactly what it was like to be in your situation. That's why we're only describing our features to you without actually showing you: to protect member privacy! We never sell or rent your information. You control the emails you receive and what other members know about you, and you own copyright on your postings.

 **JOIN NOW**

**Institutions can subscribe to Versatile PhD to provide extra resources  
for their students.**

**LEARN MORE ▶**

### Subscribing Institutions

#### FOUNDING SUBSCRIBERS

[Michigan State University](#)

[University of Pennsylvania](#)

[Duke University](#)

[Yale University](#)

[Harvard University](#)

[Arizona State University](#)

[Baylor University](#)

[Brown University](#)

[University of California, Berkeley](#)

[University of California, Irvine](#)

[University of California, Merced](#)

[University of California, San Diego](#)

[University of California, Santa Cruz](#)

[Case Western Reserve University](#)

[Columbia University](#)

[Cornell University](#)

[Duke University](#)

[Florida International University](#)

[Georgia Tech](#)

[University of Arkansas](#)

[Boston College](#)

[University of Calgary](#)

[University of California, Davis](#)

[University of California, Los Angeles](#)

[University of California, Riverside](#)

[University of California Santa Barbara](#)

[Carnegie Mellon University](#)

[University of Chicago](#)

[University of Connecticut](#)

[University of Denver](#)

[Emory University](#)

[Florida State University](#)

[Harvard University](#)

[Icahn School of Medicine at Mt. Sinai](#)

[Indiana University, Bloomington](#)

[Johns Hopkins University](#)

[Lawrence Berkeley National Lab](#)

[University of Maryland, College Park](#)

[Michigan State University](#)

[University of Minnesota](#)

[New York University](#)

[University of North Carolina, Chapel Hill](#)

[Northwestern University](#)

[The Ohio State University](#)

[University of Pennsylvania](#)

[Princeton University](#)

[Rice University](#)

[University of Southern California](#)

[Syracuse University](#)

[Texas A&M University](#)

[University of Texas at Austin](#)

[Tufts University](#)

[University at Buffalo](#)

[Vanderbilt University](#)

[Washington State University](#)

[Wayne State University](#)

[University of Wisconsin-Milwaukee](#)

[Worcester Polytechnic Institute](#)

[University of Illinois at Chicago](#)

[University of Iowa](#)

[University of Kentucky](#)

[Lehigh University](#)

[Massachusetts Institute of Technology](#)

[University of Michigan, Ann Arbor](#)

[New School](#)

[CUNY Graduate Center](#)

[University of North Dakota](#)

[University of Notre Dame](#)

[University of Oregon](#)

[University of Pittsburgh](#)

[Purdue University](#)

[Rutgers University–New Brunswick](#)

[St. John's University](#)

[Temple University](#)

[University of Texas, Arlington](#)

[University of Texas at El Paso](#)

[Tulane University](#)

[University of Georgia](#)

[Virginia Commonwealth University](#)

[Washington University in St. Louis](#)

[Western Michigan University](#)

[University of Wisconsin-Madison](#)

[Yale University](#)

[Home](#) [About](#) [Careers](#) [Jobs](#) [Members](#) [Meetups](#) [Privacy Policy](#) [Terms of Service](#) [Contact](#)

Copyright © 2010-2018 All Rights Reserved.

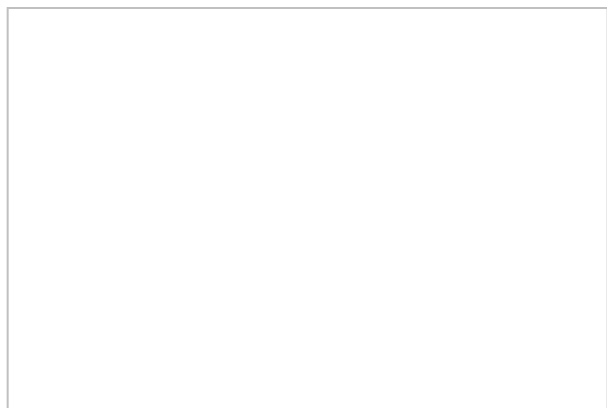


# [Mav Grad Blog](#)

## [Office of Graduate Studies, Student Services](#)

[April 5](#)

### [Grad life in Kinesiology](#)



I arrived at UTA in January of 2016 excited to be a part of the freshly created Kinesiology doctorate program. It was my second major move in 2 years, I thought I had the stencil figured out for adapting to life in a new city. It turns out I was wrong, Arlington was more than a new city, it was a completely different world than what I was used to- life as a PhD student is markedly different than the previous roles I've been cast to as well.

My beginnings in academia were at the University of Alberta in Edmonton, Canada, my *hometown*. Edmonton was small enough, and I was well enough established that no matter where I went or what I did, I could always find a common link with someone I knew. That could mean making friends playing shinny, seeing the regulars at the local ski hill, or bumping into a mutual acquaintance mountaineering. It was easy to meet like-minded individuals and establish a social network. Between the tremendous opportunity to meet people through social activities and sharing experiences with peers thrown in the same situation starting university, I had no desire or capacity to expand my friend groups when I started graduate school (also at the University of Alberta). As a result I was almost entirely absent from graduate student life at the University of Alberta.

Then came my first major move, way down under to Melbourne, Australia. To set the stage, Melbourne in brief is a city of 6 million+ people, divided into several suburbs all of which have a remarkably local and home atmosphere. The lifestyle is incredibly active and social, and if I learned one thing from moving to Melbourne, if you visit in winter, bring pants. I was still a master's student while I was in Melbourne, but under rather unique circumstances. I was not at a university, I had no classes, and was in the not quite finished wing of a research institute with a desk just on the other side of the wall from an MRI helium pump that went "pfew...pfew...pfew..." all day, every day. To say the least, graduate student life was non-existent. But, similar to Edmonton, you would meet people no matter where you went- couple hour drive to go surfing on the coast, cycle clubs, or even down at the park for après work wine and cheese.

So when I set off for Arlington in January of 2016, I was ready. I had already made the leap from relatively small Edmonton to big city Melbourne, and had made lots of really good friends, found my niche activities, and integrated myself nicely into the Australian way of life. As I said earlier, it turns out I wasn't ready for Arlington, it was a serious

case of culture shock- not the same nauseating culture shock feeling you get when you drive on the left side of the road for the first time, but the kinds when you have absolutely no idea how to act properly.

It's only fair that I set the stage for Arlington as I have for Edmonton and Melbourne. Arlington is a city of half a million, just one of the cities representing the hyphen in D-FW. Contrary to popular belief, Arlington is not in the desert, and in accordance with popular belief, Arlington is scorching hot, taking the crown for most mundane weather with 4 months of consecutive 98 degree cloudless days followed by 3 other seasons that the rest of the world would describe as "mild" or "quite pleasant" rather than Fall, Winter or Spring. Opposite to more polar regions, summer is the season of hibernation, and space is anything but a concern. Being in a metroplex of 7+ million means a long drive to leave the city, without living in a big city.

Now, my usual integration strategy didn't have the chance to work or fail here; 10 hours to the nearest Rocky Mountain and a flight to the nearest ocean wave, you're not going to find all that many Arlingtonians making either trip. And between the fire ants and stifling heat, you won't find them relaxing outside either. However, there are unique opportunities that have been presented by UTA.

UTA is widely considered a commuter school. This is certainly apparent between terms when the campus is a ghost town, save for the international students and graduate students (most of whom are international). This core of students can always be found on campus, and have found their niche activities. For myself this has been any number of the facilities provided at the MAC- the indoor climbing wall, indoor soccer arena, ping pong, beach volleyball, and fitness center. There's always a friendly smiling face around or a pick-up game to join which makes the MAC a tremendous resource for maintaining a healthy lifestyle as well as meeting peers with a shared interest. To me, these facilities are very underused, and I highly encourage more students to become cognizant of their health and social opportunities. These facilities are entirely free to you, use them!

Graduate student life within the department of Kinesiology is an asset, and one of the best aspects of UTA. The department highly encourages student involvement and healthy living, as healthy living is one of the department ideals. The department often sponsors or makes a presence at events and ensures graduate students are aware of opportunities to participate. The department boasts heavy involvement in events such as the Homecoming 5 Km race to student sport games, their positive presence is refreshing. Further, graduate students are granted the opportunity to interact with undergraduates at research days, and we are always in need of healthy control subjects for research so don't be afraid to approach your TA and ask about research opportunities. Participation in research is one of the best ways to learn about research, and about your own academic interests and future opportunities.

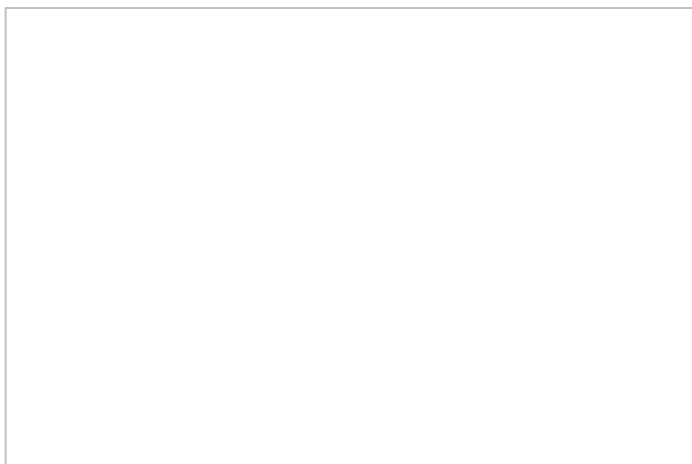
Graduate student life in the department of Kinesiology makes you part of a small community of really phenomenal students, and provides you with the start of your niche, critical for your success. Although it is not widely talked about, your enjoyment inside and outside of school is absolutely critical for your mental and physical health; which in turn is critical for your academic performance. The department of Kinesiology and the MAC provide innumerable opportunities for this, I highly encourage other students to test the waters!

### **About the author**

Rhys Beaudry is a current Kinesiology PhD student at UT Arlington, UT Arlington FitSTEPS for Life clinical coordinator and research assistant in the iCARE laboratory under Dr. Mark Haykowsky. His primary research interests are in human cardiovascular physiology and cardio-oncology, specifically, the study of heart failure related to breast cancer and breast cancer treatment.

Category: [Graduate Student Spotlight](#), [Resources](#), [Social](#), [Uncategorized](#) | [LEAVE A COMMENT](#)  
[March 21](#)

## [Mavericks Conduct Experiment for Distance Learner Representation](#)



**By Jen Blankenship**

Mavericks in the Graduate Student Senate are stretching to reach new distance goals.

An experimental non-voting member was invited into GSS this spring. Leah Sperry, in the graduate social work program, now serves on the GSS Resolutions Committee via remote access. She is the first distance student to ever do so. She volunteered to help the group carve out more representation possibilities for the growing distance learner population.

UT Arlington Distance Learners include military personnel from around the planet, people who didn't complete their education at younger ages and those seeking more education to enhance their job market competitiveness, among others. For the experiment, distance learners are defined as students enrolled in on line courses only.

Sperry's remote access has been temporarily accepted as a non-voting member of the committee specifically to conduct this experiment. Voting membership carries privileges and includes travel awards. GSS has always required members to be physically present in order to become voting members, a policy that currently excludes distance learners.

The addition of Sperry required the Resolutions Committee to adjust immediately by creating a sub-committee team of five which includes her. Three students on the team are reviewing the GSS Constitution and By-Laws to determine what policy changes may help transition remote participants to voting members.

The team leader, Parham Asgari, also has some team members reviewing software and hardware changes that may be needed to help the experiment succeed. He is a chemistry graduate student with leadership experience and plenty of remote meeting experience. He anticipates the overall hardware needs will be minimal. Specifics won't be available until the experiment is completed.

Two team members promptly became Sperry's remote assistants to help monitor her live participation. Shannon Hoffman and Kevin Vilbig, both social work graduate students, make certain Sperry can see, hear and experience the meetings. Unfortunately, there have been many connection hiccups so far. Vilbig noted an additional leadership position as a remote assistant may be required at GSS general body meetings if this experiment becomes successful at the team and committee level.

That success may also mean altering voting methods at GSS general meetings where a shift to roll call methods rather than ayes may be needed to adequately include remote attendees. Currently, any graduate student can attend the general body meetings in person to become a voting member but the number of distance learners who might become voting

members in the future may be limited by technology, assuming the experiment is successful and reaches that point.

The experiment results could also open options for students who normally attend GSS in person. It is possible that they, too, could be present by remote access on a limited basis, according one of the remote meeting models Asgari discovered.

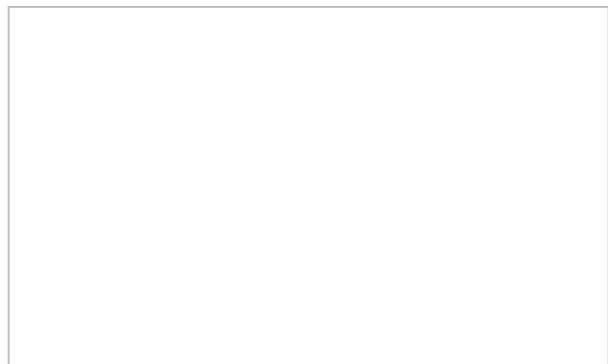
The team plans to continue its experiment as long as needed, under the direction of the Resolutions Committee and GSS Executives. These Mavericks view it as a doorway to include more graduate students in GSS and to help prepare them for remote meetings in the work place.

Category: [Resources](#), [Uncategorized](#) | [LEAVE A COMMENT](#)  
[March 7](#)

## **[Health is the Real Wealth](#)**

A wise man once said “when in war, pray not for an easy opponent, but for a sharp sword”. Same can be applied to life. One must not hope for an easy life but gather the strength to fight back. The most powerful weapon one can ever have is their mind and body. It’s important to have them function at their best. Being in graduate school, one tends to neglect their health and fitness which is no surprise as once we start getting busy, we want to spend as much time as possible on our academics.

When I was young I used to be a very active child, playful & mischievous, running around all the time. But later when I got into school I had to cut down on my fun and focus more on studies. Still I had put quite some time into athletics and thus I became a good sportsman and maintained a certain level of fitness. But when I got into college that is when things started getting serious. For a whole semester, I never got the chance to step on the field. Later, when I got some free time and started playing basketball I could clearly observe that I had a clear drop in my stamina, and beyond that my mind was not functioning impulsively as it used to, I got less immune and started becoming lazy.



That is when I realized that I am doing something wrong. I started going to the gym and after a few months I started feeling right again. Being experienced both sides of life I can guarantee that no one would want to go back again. I know that people in college would rather spend the hour in a lab studying rather than in a gym. But here is the thing that most people do not understand. By being fit, our mind and body work much more efficiently and we can accomplish a lot more than we normally would. Studies have shown that the brain of an athlete works up to 40% better than an average human being. So, in the end, spending some time on exercise gives the body the capability to be able to work quicker and for longer durations. Hence in the long run we are only saving time with a bonus of great health.

By keeping fit I don’t mean that one must go to the gym every day or spend hours and hours on it. Even small things like walking makes a huge difference. Every time I walk, I try to walk a bit faster and that is a good workout by itself. If I don’t have a lot of time I just go for a run around a few blocks for a couple of minutes. That sure does build up a sweat. I try playing games and sports as any outdoor game is a fun exercise.

Being an athlete, and trying to be fit through my life till date, I can promise that it is an experience that one would live and cherish. A healthy and fit body can make a massive change in life. It is like a habit that makes us better and even today I am surprised by how much I stretch capabilities of my body and by the way it responds. It's unbelievable what the human body can do with the correct training. Having experienced the beauty of fitness, I always encourage people to do whatever they can and just take a step towards trying to make life better. The University of Texas at Arlington is doing a great job by offering immense opportunities for the students to indulge in some activity. Let's try to use them and bring out the better person within us.

### **About the Author**

Goutam Kolla is a graduate student at the University of Texas at Arlington, pursuing his masters in Industrial Engineering. He has been an active member of the Graduate Student Senate and is currently serving as the Chair of the Outreach Committee.

Category: [Uncategorized](#) | [LEAVE A COMMENT](#)  
[January 2](#)

### **GSS Fall 2016 Social**

The video below showcases the Graduate Student Senate's events and activities from 2016. Thank you to all who participated! A special farewell to the outgoing members of the Executive Board, Sahana Vemuri and Tarun Nukala Reddy!

Category: [Uncategorized](#) | [LEAVE A COMMENT](#)  
[November 3](#)

### **Introduce Young Students to Research Early**

When I was a freshman in college, I set my sights on attending medical school by way of a fancy Biomedical Engineering degree. I was aware that to even be considered, I needed to showcase a heavy role in research. So what did I do next? I requested to volunteer with any professor that would take me in. Unfortunately, I was faced with the harsh

reality that many undergrads don't get to participate in research until it's time to embark on the Senior Design project. Why is that? Well the most common reason I was given was that I had not completed enough courses yet to prepare me to even hold a beaker. Also, it seemed that not too many other students my age were interested in doing research. But what they did not understand was that at the very least, I just wanted to watch and listen in the background.

It wasn't until my Junior year when a Biomechanics professor allowed me to assist in research. I remember being in awe with all the machines, sensors, equipment that were being used for just one experiment. As soon as I arrived home I immediately began researching all the methods and biomechanics that inspired the project. I loved the research so much that I would be in the lab on Saturdays at 6am since this was the only time the Orthopedic Surgery residents were available to run experiments. After a few short weeks in the lab, I had learned more basic science and biomechanics than I had in 2 years of engineering classes. It did not take long for me to find my true passion in research and ditch the MCAT prep books.

Now that we are in graduate school we have a stronger focus on the career path we want to follow. But think back to your undergraduate days, surely there was somebody who influenced you to pursue higher education in your given field. As graduate students, we are continuously working hard to further advance our fields, and we should begin to foster the passion we have for our field in the younger students. As a GTA or GRA, I encourage you to invite the undergrads in your classes to tour the lab and learn more about research. Not only is it a great experience for them to get out of the classroom, but it will further develop your own understanding and teaching methods. Engaging younger students to participate in lab activities can also improve student performance.

The Office of Graduate Studies currently hosts the I-Engage Mentoring Program, in which a Graduate Student can bring in an Undergraduate for a summer-long research experience. I recommend for you to look into this program by visiting the [website](#).

#### **About the Author:**

Academically, Anthony N. Khoury is a Ph.D. Candidate and Clinical Research Assistant in the Bioengineering Department at UTA. He conducts research with his Ph.D. guide at Hip Preservation Center, Baylor University Medical Center at Dallas. Anthony currently serves as the Chair of the Programs Committee of the Graduate Student Senate.

Category: [Uncategorized](#) | [LEAVE A COMMENT](#)  
[October 18](#)

### **[Campus Involvement as a Graduate Student](#)**

[Love Kelly](#)



Love Kelly, the author of this article, is a current graduate student in Social Work at UT Arlington.

The stereotype that graduate school is generally seen as a period to be very focused on academics and the days of being involved in student organizations and leadership is over is so far from the truth. As a current graduate student who is more involved in campus life, I want to break the stereotype and encourage graduate students to get more involved in campus life. From my experience I have learned that being involved in a student organization on campus as a graduate student is important because it a great way to meet students outside of your program, it offers leadership opportunities and learning experiences, and opportunities to network with professionals on and off campus.

I understand there are some factors such as having children or a full-time job that could hinder a graduate student from participating in campus activities. However, graduate students who are able can get involved through [UT Arlington Mavorgs](#) or by obtaining a [sports pass](#) to attend UTA games on campus. Mavorgs helps students find organizations that interest them, find an event on campus, and records your involvement in various organizations.

When I first transferred to UTA as an undergrad I didn't see the value of being involved on campus. As a commuter student, I always used the excuse of living far from campus as a reason to not be involved. My first campus involvement I was when I decided to be an active member and an officer for the [Social Work Constituency Council](#). I still wasn't as involved in extracurricular activities and it remained that way until I graduated. As I choose to further my education at UTA, I made the decision to be more involved on campus and I am enjoying every minute of it. I am still a commuter student but compared to when I was an undergraduate student, I work around my school schedule to go to on- and off-campus games, events, and trainings. Personally, it has been very beneficial in helping me develop skills to balance my time between school and my involvements, I have made new friends and met more faculty and staff members, I am more aware of my passion and strengths, and finally I have a much better appreciation of UTA. GET INVOLVED. You'll be amazed about the difference you can make through your involvement on campus.

#### **About the Author:**

Love Kelly is a current graduate student in Social Work at UT Arlington. She is a member and Community Chair for the Social Work Constituency Council, a member of the Student Publications Committee, a member of the Phi Alpha Social Work Honor Society and the Co-Chair for the Graduate Student Senate Outreach Committee.

Category: [Uncategorized](#) | [LEAVE A COMMENT](#)  
[October 6](#)

### **[Lifetime Alumni GSS Member Reflects in Awe](#)**

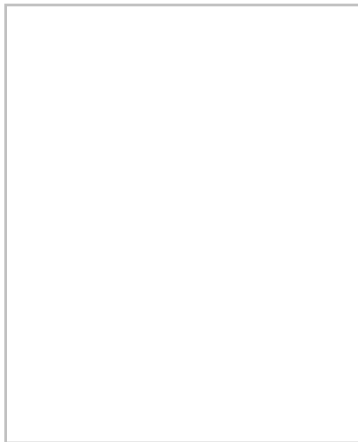
While a young journalist decades ago my typing skills spread from the campus newsroom to a small closet at a nearby major publication. Typing late into the evenings in solitude at speeds justifying the nickname 'smoking keys,' the daily paper's condensed version went online before the World Wide Web existed. Subscribers, among the first in the nation to do so, accessed the news with blinking green cursors and C-prompt commands. We students were mavericks at the dawn of a new era.

Mavericks can be defined as independent-minded people. Their trails saturate the university and stretch around the globe. As a Lifetime Alumni Member the maverick impact is stunning and easy to see now.

The boxy bulky computer monitors with green text The Shorthorn once cherished are a faded memory eclipsed by sexy small footprint computer technology. Few people recall the chrome ashtrays that once lined the hallways of Ransom



Hall. Gone are the cozy Alan Saxe sofas from the Central Library and modern couches from the Palo Duro lounge where decades of alums proudly recall their naps. The fast-paced diversified campus now clusters multipurpose furniture groups, designed for form and function, to serve ambitious maverick students well.

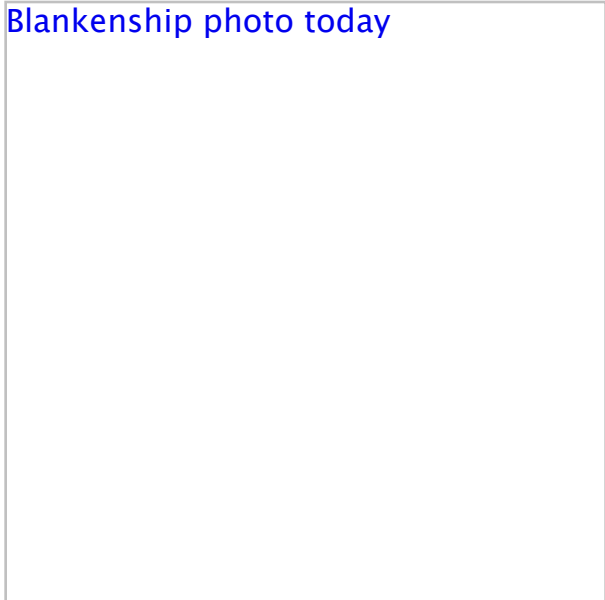


Jen Blankenship when she first arrived at UTA.

Most of the gorgeous fraternity and sorority homes on Greek Row had an ugly era. The Social Work Complex was once a high school and Swift Center was an elementary school surrounded by vast open fields.

The stronger more beautiful campus screams so much purpose and creativity that even the squirrels look braver, better organized and more approachable than decades ago. Accessibility dreams that came true here spark emotions. Countless research accomplishments continually rolling out deserve tremendous respect.

[Blankenship photo today](#)



Blankenship as a returning student presently.

Swoon over the career center, campus shops, food and other services because these were once just a student body wish list. Gasp at the gorgeous high-tech planetarium, the courtyards and greenways encouraging personal reflection and sustainability. Use the campus shuttle system. Benefit from the wellness focus of the Maverick Activities Center. People decided to reach these goals and persevered.

Mavericks carve new paths and turn adversity into successes, opportunities into history. They stretch to achieve and do



not quit. Grab your idea and mold it into something useful. Earn your maverick status and continue the wonderful legacy of this university. The next Lifetime Alumni Member who looks back in awe may be you.

### **About the Author:**

Jen Blankenship is a current UTA graduate student from CAPPa who has previously pursued degrees at UTA, first in 1987, then in 2008, and one at present. Jen is the current GSS Resolutions Committee Chairperson and a Lifetime Alumni Member at UTA. In 2009, Jen received the Outstanding Student Leader award.

Category: [Graduate Student Spotlight](#), [Uncategorized](#) | [LEAVE A COMMENT](#)  
[September 27](#)

### **[Coffee with the Graduate Student Senate](#)**

Come to the ‘Coffee with the Graduate Student Senate’ this Thursday, September 29, 2016 from 4:00 – 5:30 PM in the Palo Duro Lounge, UC.

Have Coffee, meet your UTA Graduate Student Senate representatives, learn about the resolutions GSS is taking up and see what GSS is doing to make the life of graduate students better at UTA.

Show your support and put forward your concerns and see what GSS has to offer for you. See you there!


For more, visit:

[uta.edu/gss](http://uta.edu/gss)

[facebook.com/utagss](https://www.facebook.com/utagss)

[twitter.com/utagss](https://twitter.com/utagss)

[gss-gg-poster-2](#)



Category: [Uncategorized](#) | [LEAVE A COMMENT](#)

[March 1](#)

## **GSS Student of the Month – November 2015**

Kaci McCourt was the November Student of the Month for the GSS. Here is a brief bio about Kaci!

IMG\_0286



I am pursuing my PhD in English. After graduation I plan to continue teaching Literature, Communication/Writing, and Rhetoric/Composition at a university. My goal is to be able to teach while doing research in my field of Medieval British Literature. I joined GSS because I believe that having an organization at UTA with a specific goal of helping all graduate students is a vital part of the university community. Being a part of this organization has given me the opportunity to serve on university committees, receive travel awards for presentations and research, and attend professional development workshops and programs. Being a part of the GSS means not only helping myself in my own academic and career goals, but also participating in an organization that will continue to help all present and future graduate students at our university. What I like most about the GSS is the awareness that it has given me of the needs that all graduate students face. Often graduate students can feel disconnected from other departments and colleges in our university, but the GSS is the one organization that can connect and benefit all graduate students. Being able to listen to others, and have my own voice heard, has given me a better appreciation for my university and the amazing opportunities that graduate students have while attending UTA. One of the interesting facts about me was after my 6 days at Disney World I finally achieved my dream of meeting all the Disney princesses!

Category: [Uncategorized](#) | [LEAVE A COMMENT](#)  
[October 22](#)

## [College of Engineering and English Department Collaboration](#)

As part of a new experiment in including writing instruction into more courses, the English Department has teamed up with the College of Engineering to include weekly instruction from English GTAs as a regular part of ENGR 1300. The English Department coordinator for the program, Dr. Peggy Kulesz, describes it as follows:

### **“ENGR 1300: Introduction to Engineering**

Six Graduate Teaching Assistants from the UTA English Department are part of the first year implementation of a new collaboration with the College of Engineering. Sarah Shelton, Julie McCown, Alison Torres-Ramos, Jennifer Caro-Barnes Miriam Rowntree, and Kaci McCourt were selected to be the first group of instructors for this new course. ENGR 1300 is the result of a partnership between the English Department and the College of Engineering, and it is the first college-wide required course for the College of Engineering. It is based on a problem solving model for the process of applying mathematical principles to solve real-life engineering problems and technical writing assignments. Weekly writing instruction is included as part of class lessons and activities. Writing assignments have been developed to assist students in the basics of written communication, including strategies for improving organization, summarization, close reading, and professional communication. Issues of audience and rhetorical situation inform the way in which students are asked to think about the specific purpose of each writing assignment.”

Both the College of Engineering and the English Department are hopeful that this course will help engineering students improve their writing abilities and therefore their performance both in later engineering courses and their future careers.

Category: [Uncategorized](#) | [LEAVE A COMMENT](#)

[Older posts](#)



- [What is Grad Blog?](#)
- [Graduate Student Senate](#)
  - [Travel Award of Graduate Student Senate \(TAGSS\)](#)
- [UT Arlington Resources](#)
- [Contact Us](#)
- [Kudos](#)

## Recent Posts

- [Grad life in Kinesiology](#)
- [Mavericks Conduct Experiment for Distance Learner Representation](#)
- [Health is the Real Wealth](#)
- [GSS Fall 2016 Social](#)
- [Introduce Young Students to Research Early](#)

## Meta

- [Log in](#)
- [Entries RSS](#)
- [Comments RSS](#)
- [Maverick Blogs](#)
  
- [Graduate Student Senate – UT Arlington](#)
- [Surviving Graduate School](#)

- [Grad life in Kinesiology](#)
- [Mavericks Conduct Experiment for Distance Learner Representation](#)

## [Health is the Real Wealth](#)

- [GSS Fall 2016 Social](#)
- [Introduce Young Students to Research Early](#)
- [Campus Involvement as a Graduate Student](#)
- [Lifetime Alumni GSS Member Reflects in Awe](#)
- [Coffee with the Graduate Student Senate](#)
- [GSS Student of the Month – November 2015](#)
- [College of Engineering and English Department Collaboration](#)

## Meta

- [Log in](#)
- [Entries RSS](#)
- [Comments RSS](#)
- [Maverick Blogs](#)

[Theme "Anarcho Notepad" designed and engineered by Arthur \(Berserkr\) Gareginyan.](#)  
[Skip to toolbar](#)

[Log In](#)

-

**Authorization Required:** This blog may only be viewed by users who are subscribed to this blog.

## Sign in to your site:

[Use My NetID](#)

([Guest login here](#))

[← Back to Graduate Advisor Network](#)

## ALUMNI/FRIENDS



### QUICKLINKS

ALUMNI RELATIONS

UTA MAGAZINE

GIVING TO UTA

SHOP ONLINE

### EVENTS

[→ See all events](#)

### Latest News

#### Research savvy

Graduate has an eye on expanding research world

#### Woman in Technology

A UTA bioengineering professor has earned a Dallas Business Journal Women in Technology award

#### Doctoral first

Inaugural class in kinesiology doctoral program

[All news →](#)



## Resources for Alumni/Friends

### ALUMNI RESOURCES



#### SPIRIT

[Alumni Relations, Office of](#)

[Apparel and Gifts, UTA](#)

[Diploma Frames](#)

[Engraved Chair \(www.collegechair.com\)](#)

[Homecoming](#)

[License Plate \(TxDOT\), UT Arlington](#)

[Maverick Club \(Athletics\)](#)

#### STUDENT SERVICES

[Bookstore, UTA](#)

[Commencement](#)



[Conference Services](#)

[Distance Education](#)

[Former Student \(Admissions\)](#)

[Library Cards and Borrowing](#)

[Transcripts](#)

### **CAREER & BUSINESS**

[College Town, UTA](#)

[Division for Enterprise Development](#)

[Employer Services](#)

[Lockheed Martin Career Development Center, The](#)

[TMAC](#)

### **GIVING**

[Annual Giving \(Giving\)](#)

[Development, Office of](#)

[Give Now](#)

[Maverick Club \(Athletics\)](#)

## **RECREATION & ENTERTAINMENT**



[Campus Recreation](#)

[Gallery at UTA, The](#)

[Intercollegiate Athletics](#)

[Maverick Activities Center \(MAC\)](#)

[Maverick Club \(Athletics\)](#)

[Summer Youth Programs](#)

[Swimming Pool Rental](#)

[UTA Planetarium](#)

## **NEWS & EVENTS**



[Events Calendar](#)

[Inquiry Research Magazine](#)

[News Releases](#)

[Publications](#)

[Radio, UTA](#)

[Shorthorn - Student Newspaper](#)

[UT Arlington Magazine](#)



© 2018 The University of Texas at Arlington

701 S. Nedderman Drive • Arlington, TX 76019 • 817-272-2011

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Institutional Resume](#)

[UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) | [Report Fraud](#)

[About Us](#)

[Admissions](#)

[Academics](#)

[Research](#)

[Student Life](#)

[Giving](#)

[Athletics](#)

[News Center](#)

## VISITORS

### QUICKLINKS

GETTING HERE

GUEST PARKING

ARLINGTON AND THE REGION

COMMENCEMENT

HELP CENTER

### EVENTS

[→ See all events](#)

## Latest News

### Health impacts

A UTA study looks at why black men experience greater increases in high blood pressure.

### Cardiac development

A UTA researcher is building a new microscope that could help create better ways of looking at the heart.

### Glass art sale

Annual Glass Art Sale and Show scheduled.

[All news](#) →





## Resources for Visitors

### ABOUT UTA



#### ACADEMIC RESOURCES

[Academic Units](#)

[Division for Enterprise Development](#)

[Maverick Speakers Series](#)

[Smart Hospital](#)

[University Library](#)

#### SPIRIT & TRADITIONS

[Apparel and Gifts, UTA](#)

[Bookstore, UTA](#)

[UT Arlington Traditions & History](#)

[UTAGear.com](#)

#### CAMPUS SERVICES

[Bookstore, UTA](#)

[Dining Services](#)

[EXCEL Campus Activities](#)

[Intercollegiate Athletics](#)

[Maverick Activities Center \(MAC\)](#)

[University Center, E.H. Hereford](#)

## **VENUES**

[College Park Center](#)

[Gallery at UTA, The](#)

[Irons Recital Hall \(map\)](#)

[Mainstage Theatre \(map\)](#)

[Maverick Stadium](#)

[Texas Hall](#)

[UTA Planetarium](#)

## **VISITING UTA & THE AREA**



### **UTA**

[Dan D'Pert University Welcome Center](#)

[Driving Directions](#)

[Maps, Campus](#)

[Parking and Transportation Services](#)

[Visit UTA](#)

### **ARLINGTON**

[Arlington Chamber of Commerce](#)

[Arlington Convention and Visitors Bureau](#)

[Arlington, City of](#)

[Hotels, Arlington Area \(experiencearlington.org\)](#)

### **DALLAS & FORT WORTH**

[Arlington Convention and Visitors Bureau](#)

[Dallas Convention and Visitors Bureau](#)

[Dallas Love Field Airport](#)

[Dallas/Fort Worth International Airport](#)

[UTA Fort Worth](#)

### **COMMUNITY RESOURCES**

[College Town, UTA](#)

[Conference Services](#)

[North Texas Commission \(www.ntc-dfw.org\)](http://www.ntc-dfw.org)

[Summer Youth Programs](#)

## NEWS & EVENTS



### EVENTS

[Commencement](#)

[Events Calendar](#)

[Homecoming](#)

[International Week](#)

[Maverick Speakers Series](#)

[MavsMeet Convocation](#)

### PUBLICATIONS

[Inquiry Research Magazine](#)

[Publications](#)

[UT Arlington Magazine](#)

### NEWS

[News Releases](#)

[Shorthorn - Student Newspaper](#)

## GIVING



[Alumni Relations, Office of](#)

[Annual Giving \(Giving\)](#)

[Development, Office of](#)

[Give Now](#)



© 2018 The University of Texas at Arlington

701 S. Nedderman Drive • Arlington, TX 76019 • 817-272-2011

[About Us](#)

[Admissions](#)

[Academics](#)

[Research](#)

[Student Life](#)

[Giving](#)

[Athletics](#)

[News Center](#)

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Institutional Resume](#)

[UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) | [Report Fraud](#)

## CURRENT STUDENTS



### QUICKLINKS

MYMAV

STUDENT EMAIL

BLACKBOARD

HELP CENTER

OIT HELP DESK

### EVENTS

[→ See all events](#)

## Latest News from TrailBlazer

APRIL 3, 2018

### Gretchen Carlson at Maverick Speakers Series

Gretchen Carlson spoke about female empowerment and answered students' questions at the final Maverick Speakers Series event for this academic year. [See more photos.](#)

### Vote in campus elections

Vote for student body president and vice president, student senators, Mr. and Ms. UTA, and UTA Ambassadors 9 a.m. -6 p.m. **Wednesday-Thursday, April 4-5**, in the University Center Art Gallery. Bring your student ID card. [Read more.](#)

[Read the full issue](#) →





## Resources for Current Students

### CAMPUS LIFE



#### CAMPUS SERVICES

[Bookstore, UTA](#)

[Dining Services](#)

[Mav Express ID and Debit Card](#)

[Parking and Transportation Services](#)

[University Housing](#)

#### ORGANIZATIONS

[Department of Student Organizations](#)

[EXCEL Campus Activities](#)

Fraternity and Sorority Life  
MavOrgs (Student Organizations)  
Multicultural Affairs  
Student Governance, Office of  
UTA Volunteers

**HEALTH & WELLNESS**

Center for Transforming Lives  
Counseling and Psychological Services (CAPS)  
Health Services  
Students in Recovery, Center for

**RECREATION**

Aquatics  
Campus Recreation  
Intercollegiate Athletics  
Intramural Sports  
Maverick Activities Center (MAC)

**ACADEMIC RESOURCES**



**ACADEMIC PLANNING**

Commencement  
Orientation, New Maverick  
Records and Registration, Office of (Registrar)  
University Advising Center

**COURSE INFORMATION**

Academic Units  
Catalog, University  
Classes, Schedule of  
Course Syllabus Information  
Final Exam Schedules

**ACADEMIC SUPPORT**

Center for Service Learning  
Dean of Students, Office of the

[Division of Student Success \(formerly University College\)](#)

[Lockheed Martin Career Development Center, The](#)

[Students with Disabilities, Office for](#)

[University Library](#)

[Veteran Benefits Certification Office](#)

### **ACADEMIC PROGRAMS**

[Distance Education](#)

[International Education, Office of](#)

[Study Abroad Programs \(Office of International Education\)](#)

### **FINANCIAL RESOURCES**



[Financial Aid and Scholarships, Office of](#)

[Payment, Make a](#)

[Student Accounts, Office of \(formerly Bursar Services\)](#)

[Tuition Information and Resources](#)

### **BUILDINGS & VENUES**



[College Park Center](#)

[Maps, Campus](#)

[Maverick Activities Center \(MAC\)](#)

### **SAFETY & SECURITY**



[Community That Cares](#)

[Emergency Assistance Call Boxes](#)

[Title IX: Sex Discrimination, Harassment, and Assault](#)

### **ACADEMIC DATES**

### **GET HELP WITH:**

**May 4** - Last day of classes

[Advising](#)

**May 5** - Final exams (dept.)

---

**May 7-11** - Final exams

---

**May 10-12** - Commencement Ceremonies

---

**May 13** - Registration Ends for Summer Term - 14 Week Session

---

[Academic Calendar](#) →

[Disability Services](#)

[Parking](#)

[Make a payment](#)



© 2018 The University of Texas at Arlington

701 S. Nedderman Drive • Arlington, TX 76019 • 817-272-2011

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Institutional Resume](#)

[UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) | [Report Fraud](#)

[About Us](#)

[Admissions](#)

[Academics](#)

[Research](#)

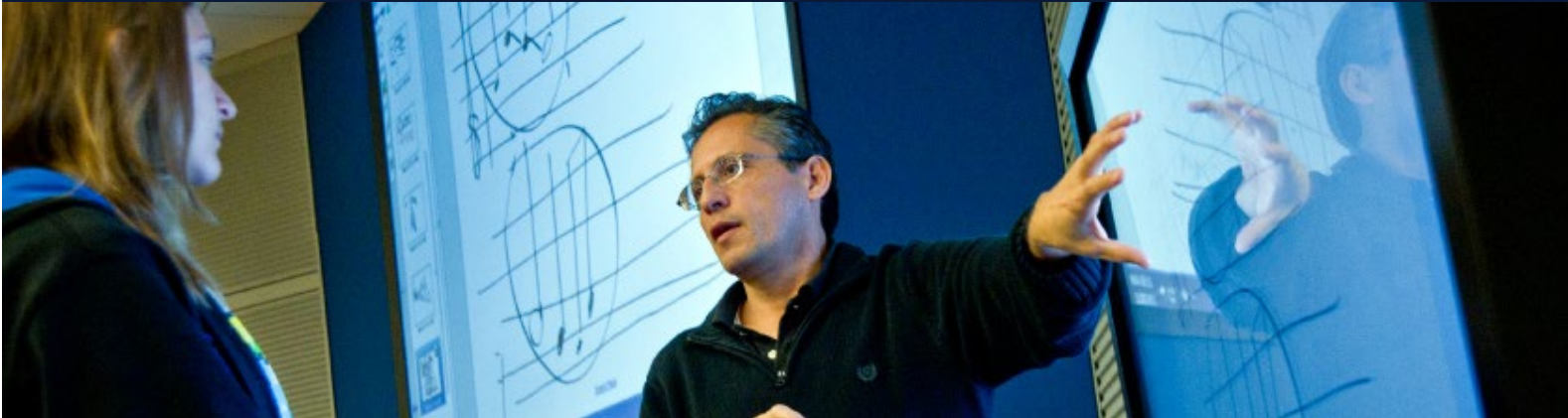
[Student Life](#)

[Giving](#)

[Athletics](#)

[News Center](#)

## FACULTY & STAFF



### QUICKLINKS

[EMAIL](#)
[HELP DESK](#)
[PROFILES](#)
[UTSHARE](#)
[UTAFLOW](#)
[PEOPLE ADMIN](#)

### EVENTS

[→ See all events](#)

## Latest News from MavWire

MAY 30, 2018

### Welcome to Business Dean Dombroski

Harry Dombroski, the new dean of the College of Business, received a true Maverick welcome May 21 in the Hospitality Suite at College Park Center. Dean Dombroski comes to UTA after a prestigious career with Hunt Oil. [See more photos.](#)

### New student center available for events

As of **Friday, June 1**, student organizations can begin reserving space in the new West Campus Student Center for events. The center will open **Monday, Aug. 20**. For details, contact the conference coordinator in the University and Student Center Operations Office at 817-272-2929 or [ucrequest@uta.edu](mailto:ucrequest@uta.edu).

[Read the full issue](#) →



```
<div class="row">  
<div class="column">  
<h1>WEBSITE REDESIGN</h1>  
</div>  
</div>  
</header>
```

## Resources for Faculty & Staff

### EMPLOYEE RESOURCES



#### CAMPUS SERVICES

Administration and Campus Operations, Office of

Bookstore, UTA

Mav Express ID and Debit Card

Parking and Transportation Services

University Club

University Library

#### ORGANIZATIONS

[Faculty Senate](#)

[Graduate Governance](#)

[Staff Advisory Council](#)

[Undergraduate Assembly](#)

[University Committees](#)

### **EMPLOYEE SERVICES**

[Employee Benefits Services](#)

[Employee Leave Services](#)

[Equal Opportunity Services](#)

[Faculty Programs](#)

[Human Resources, Office of](#)

[Training and Development \(Business Affairs\)](#)

### **HEALTH & SAFETY**

[Aquatics](#)

[Campus Recreation](#)

[Environmental Health and Safety](#)

[Maverick Activities Center \(MAC\)](#)

[Safety and Security](#)

[Title IX: Sex Discrimination, Harassment, and Assault](#)

## **ACADEMIC RESOURCES**



### **ACADEMIC PLANNING**

[Commencement](#)

[Records and Registration, Office of \(Registrar\)](#)

### **COURSE INFORMATION**

[Academic Units](#)

[Catalog, University](#)

[Classes, Schedule of](#)

[Course Syllabus Information](#)

[Final Exam Schedules](#)

### **STUDENT SUCCESS**

[Blackboard](#)

[Business Affairs, Division of](#)

[Center for Transforming Lives](#)

[Civitas Learning](#)

[Teaching and Learning Excellence, Center for](#)

## FINANCIAL RESOURCES



[Business Affairs, Division of](#)

[Development, Office of](#)

[Payroll Services](#)

## ADMINISTRATION & POLICIES



[Handbook of Operating Procedures \(UT Arlington Policies\)](#)

[Licensing and Trademarks](#)

[Policies, Procedures, and Forms](#)

[President, Office of the](#)

[Provost and Vice President for Academic Affairs, Office of the](#)

[Research Administration](#)

[Senior Leadership Searches](#)

[University Communications, Office of](#)

[UT System](#)

## TECHNOLOGY SUPPORT



[Blackboard](#)

[Canon Print Center](#)

[Educational Technology Support Services](#)

[Information Technology, Office of](#)

[MavSpace](#)

[Mentis](#)

[OIT Help Desk](#)



## ACADEMIC DATES

**June 7** - Census date

---

**June 21** - Census date

---

**June 25** - Last day to drop classes; submit requests to advisor prior to 4:00 pm

---

**July 4** - Independence Day holiday

---

**July 4** - Independence Day holiday

---

[Academic Calendar](#) →

## QUESTIONS & COMMENTS

Have questions about UTA policies or comments about how to do things better on campus?

**WE'RE LISTENING**



© 2018 The University of Texas at Arlington

701 S. Neff Drive • Arlington, TX 76019 • 817-272-2011

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [Legal and Privacy Notice](#) |

[A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Institutional Resume](#)

[UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) | [Report Fraud](#)

[About Us](#)

[Admissions](#)

[Academics](#)

[Research](#)

[Student Life](#)

[Giving](#)

[Athletics](#)

[News Center](#)

## Request Information

We welcome your interest and we'd like to share more information about the University of Texas at Arlington!

This form is for **undergraduate enrollment information**. If you'd like information about **graduate enrollment**, please use [this form](#). There is also more information about academic majors, admissions requirements, and lots more at our [Discover UTA page](#). If you have additional questions, please [Contact Us](#).

[View form](#)

[Privacy Policy](#)



STUDENT LIFE

### 'MAY I HELP YOU?'

Need to know where to find the services you need on campus? The answer is only a phone call or email away.

➔ [Maverick Resource Hotline](#)



### ASK ADMISSIONS

Have a question about admission, but can't find the answer? Ask our mascot, Blaze Maverick. If he can't find the answer, he'll forward your question to one of our admissions counselors.

Your Question:

Your ZIP Code:

Is your question about undergraduate or graduate admission?:

- [Undergraduate Admission](#)
- [Graduate Admission](#)

If you're a transfer student from Texas, select your University:

**ASK ▶**

### CONNECT WITH US



**CHAT OFFLINE.**  
CLICK TO LEAVE A MESSAGE

### TAKE ACTION

[Check Application Status](#)

[Checklists](#)

[Find Your Counselor](#)

[Frequent Questions](#)

[Contact Admissions](#)



© 2018 The University of Texas at Arlington

701 S. Nedderman Drive • Arlington, TX 76019 • 817-272-2011

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#) | [Legal and Privacy Notice](#) |

[A-Z Index](#)

[Nondiscrimination and Title IX](#) | [Mental Health Resources](#) | [Institutional Resume](#)

[UT System](#) | [State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) | [Report Fraud](#)

[About Us](#)  
[Admissions](#)  
[Academics](#)  
[Research](#)

[Student Life](#)  
[Giving](#)  
[Athletics](#)  
[News Center](#)

## ABOUT US

- Fast Facts
- Rankings and Recognition
- Administration
- Office of the President
- Traditions & History
- Visit UTA
- Careers at UTA
- Facilities
- About Our Alumni
- Safety and Security
- Strategic Plan



The University of Texas at Arlington is a growing Carnegie Research-1 “highest research activity” powerhouse committed to life-enhancing discovery, innovative instruction, and caring community engagement. An educational leader in the heart of the thriving North Texas region, UTA nurtures minds within an environment that values excellence, ingenuity, and diversity.

With a projected global enrollment over 58,000, the University provides students world-class faculty members and more than **180 bachelor’s, master’s, and doctoral degrees** in a broad range of disciplines. Guided by its Strategic Plan 2020 [Bold Solutions | Global Impact](#), UTA is dedicated to producing the lifelong learners and critical thinkers our region and nation demand. Our students graduate ready for success: UTA was recently cited by *U.S. News & World Report* as having the second-lowest average student debt among U.S. universities surveyed. About 65 percent of the University’s **210,000 alumni** live in North Texas and contribute to our annual economic impact of \$12.8 billion in the region.

With a growing number of campus residents, UTA has become a first-choice university for students seeking a vibrant college experience. In addition to receiving a first-rate education, our students participate in a robust slate of co-curricular activities that prepare them to become the next generation of leaders.



### FAST FACTS **FILLING THE VOID**

Almost \$1.5 million in federal grants helps qualified graduate students earn doctoral degrees in areas of national need, including [mathematics](#), [computer science](#), and [bioengineering](#).

[Fast Facts about UTA](#)





# 2013-2014 Graduate Catalog

- [Home](#)
- [Degree Requirements](#)
- [Fields of Study](#)
  - [School of Architecture](#)
  - [College of Business](#)
  - [College of Education and Health Professions](#)
  - [College of Engineering](#)
  - [College of Liberal Arts](#)
  - [College of Nursing](#)
  - [College of Science](#)
  - [School of Social Work](#)
  - [School of Urban and Public Affairs](#)
- [Admissions Requirements & Procedures](#)
- [General Information & Regulations](#)
- [Graduate Calendar](#)
- [Graduate Faculty](#)
- [Table of Contents](#)
- [Index](#)

## Fields of Study

### School of Architecture

- [Architecture](#)
- [Landscape Architecture](#)

### College of Business

- [Accounting](#)
- [Business Administration](#)
- [Economics](#)
- [Finance and Real Estate](#)
- [Health Care Administration](#)
- [Information Systems & Operations Management](#)
- [Management](#)
- [Marketing](#)

### College of Education and Health Professions

- [Educational Curriculum & Instruction](#)
- [Educational Leadership and Policy Studies](#)
- [Kinesiology](#)

### College of Engineering

- [Bioengineering](#)
- [Civil Engineering](#)
- [Computer Science and Engineering](#)
- [Electrical Engineering](#)
- [Industrial and Manufacturing Systems Engineering](#)
- [Materials Science and Engineering](#)
- [Mechanical & Aerospace Engineering](#)

### College of Liberal Arts

- [Art + Art History](#)
- [Communication](#)
- [Criminology & Criminal Justice](#)
- [English](#)
- [History](#)
- [Linguistics](#)
- [Modern Languages](#)
- [Music](#)
- [Political Science](#)
- [Sociology and Anthropology](#)

### College of Nursing

- [Nursing](#)

### College of Science

- [Biology](#)
- [Chemistry & Biochemistry](#)
- [Earth and Environmental Sciences](#)

**Interdisciplinary Science**  
**Mathematics**  
**Physics**  
**Psychology**

**School of Social Work**  
**Social Work**

**School of Urban and Public Affairs**  
**City and Regional Planning**  
**Interdisciplinary Studies**  
**Public Administration**  
**Urban and Public Affairs**

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
    - Architecture
    - Landscape Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Architecture

### School of Architecture

Web [www.uta.edu/architecture/](http://www.uta.edu/architecture/)  
Phone 817.272.2801  
Fax 817.272.5098

---

### Degrees / Certificates

**Master's Degrees**  
Architecture, M.ARCH.

---

### Graduate Faculty

[Heath Macdonald](#)  
[Kevin Sloan](#)  
[Bijan Youssefzadeh](#)

**Associate Dean**  
[David Jones](#)

**Professor**  
[Edward Baum](#)  
[Robert Hamilton](#)  
[Craig Kuhner](#)  
[John McDermott](#)  
[Madan Mehta](#)

**Associate Professor**  
[George Gintole](#)  
[David Hopman](#)  
[John Maruszczak](#)  
[Steven Quevedo](#)

**Senior Lecturer**  
[Bill Boswell](#)

**Lecturer**  
[Ogden Bass](#)

---

### Graduate Advisors

[Cheryl Donaldson](#)  
*Architecture, M.ARCH.*  
*Architecture, Non-Degree Seeking*

[David Jones](#)  
*Architecture, M.ARCH.*

**Bijan Youssefzadeh**  
*Architecture, M.ARCH.*  
*Architecture, Non-Degree Seeking*

---

## Department Information

### Courses

# Department Information

## Master of Architecture

### Objective

### NAAB Statement

### Admissions Requirements

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Waiver of Graduate Record Exam (GRE)**
- **Denial of Admission**

### Graduate Teaching Assistant

### Fellowships

### Degree Requirements

- **Professional Degree Program: Path A (3.5 years)**
- **Professional Degree Program: Path B (2 years)**
- **Post-Professional Degree Program: Path C (1 year)**
- **M.C.R.P. and M.Arch. Dual Degree Program**

## Objective

The purpose of the Master of Architecture program is to educate for ultimate leadership positions within the architecture profession.

Design is emphasized as central to the discipline of design deeply informed by history, theory, technology, and the broader cultural setting. Design studios, lecture courses, seminars, and workshops develop the critical mind as well as the visual sensibility.

Architecture and its practice exist within the social fabric. Thus discourse and communication are a vital part of the educational process. Through case studies in studios and courses, students learn to present ideas, and to use and give commentary. Visiting faculty leading practitioners and teachers from other schools provide a rich connection to the world of building and to a variety of views. In addition, international student exchange programs, study-travel courses, and numerous internship opportunities in the Dallas-Fort Worth area connect the learning of architecture with the wider world.

In the United States, most state registration boards require a degree from an accredited degree



program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB,) which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree. The University of Texas at Arlington does not offer the Bachelor of Architecture degree.

The professional program leading to the Master of Architecture degree consists of a sequence of coordinated core courses that introduce and develop architectural knowledge; this is followed by a flexible array of more advanced and speculative course options. The preparation each student brings determines where, in this progression from introductory to advanced work, the program is entered. Path A is for those with a baccalaureate degree but no specific background in architecture; this sequence normally takes 3.5 years to the M.Arch. Path B is for those with a four-year undergraduate baccalaureate degree with a major in architecture; this sequence assumes satisfactory core studies and consists of about two years of more advanced professional studies. Path C is for those who already hold an accredited professional degree in architecture and who wish for a second professional degree; at least one year of advanced work is required.

## NAAB Statement

The [National Architectural Accrediting Board](#) explains the accreditation policy:

"In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB,) which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year or two-year term of accreditation, depending on its degree of conformance with established educational standards.

"Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree."

The complete NAAB Conditions for Accreditation, including Student Performance Criteria, can be found on the NAAB website at [www.naab.org](http://www.naab.org).

## Admissions Requirements

### Unconditional Admission

**Path A:** For unconditional admission to the Path A program, the candidate must meet the following requirements:

- B.S. or B.A. Degree - Hold a 4-year B.S. or B.A. degree from an accredited program.
- GPA of 3.0 - Have a GPA of 3.0 as calculated by the Graduate School.
- GRE score of 1000 - Have a minimum total score of 500 in the verbal and 500 in the quantitative portions of the Graduate Record Exam (GRE).
- 3 Letters of recommendation - Submit three letters of recommendation from sources who are familiar with the applicant's academic record, preferably former professors. (For applicants who have been out of school for an extended period, letters of recommendation may be from professional sources if academic ones are no longer available).
- 200 Word Essay  
Submit a short 200-word personal statement providing evidence of professional or academic goals consistent with the Architecture Program.

- TOEFL Score of 550

For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (TOEFL), or the equivalent score on the computer based test. For otherwise highly qualified candidates, this requirement may be eased.

- Portfolio Submission (Optional)

Submission of a design portfolio is not required. If a candidate does have a portfolio of creative work showing freehand drawings or sketches, painting, graphic design, architectural or furniture design, he/she is encouraged to submit it.

**Path B:** For unconditional admission to the Path B program, the candidate must meet the above requirements, and in addition must:

- Portfolio Submission (required)

Submit a portfolio of design work and/or professional involvement, which shows evidence of design capability on a level expected in the graduate program as determined by the Graduate Architecture Admissions Committee. (Design work produced in an office as an employee carries less weight because of the difficulty in determining the applicant's exact contribution to the work shown). The best indication of probable success in the program is the quality of work demonstrated in the portfolio.

**Path C:** For unconditional admission to the Path C program, the candidate must meet the requirements of the Path A and Path B programs (except the requirement of a B.A. or B.S. degree) and must:

- Professional Architecture Degree

Have a professional architecture degree (B.Arch. or M.Arch. or the international equivalent) from an accredited architecture program.

### Probationary Admission

**Path A:** Candidates who do not meet the criteria for unconditional admission to Path A, will be considered for probationary admission in which they will be required to maintain a grade of B or better in the first 12 credit hours of courses in the program. To be considered for probationary acceptance, the candidate must perform well on four of the following six criteria:

- Undergraduate performance in relevant courses
- Work experience
- GPA
- GRE
- Portfolio review (optional)
- Letters of recommendation

**Path B:** Candidates who do not meet the criteria for unconditional admission to Path B may be considered for probationary admission in which they will be required to maintain a grade of B or better in the first 12 credit hours of courses in the program. And/or they may also be required to take one or more Path A and/or fourth year design studio as determined by the graduate advisor on review of their portfolio before continuing with the Path B design studio sequence.

To be considered for probationary acceptance, the candidate must perform well on three of the following five criteria:

- Undergraduate performance in relevant courses
- GPA
- GRE
- Letters of recommendation
- Portfolio review

**Path C:** Candidates who do not meet the criteria for unconditional admission to Path C, may be considered for probationary admission in which they will be required to maintain a grade of B or better in the first 12 credit hours of courses in the program. To be considered for probationary

acceptance, the candidate must perform well on three of the following five criteria:

- Performance in relevant courses in a program leading to the B.Arch or M.Arch degree.
- GPA
- GRE
- Letters of recommendation
- Portfolio review

Note: Applicants whose native language is not English who do not meet the program's minimum TOEFL score, may be asked to complete extramural training in English, as approved by the program and the Graduate School.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the submission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. All missing documentation must be received before the end of the first semester of study.

### **Deferred Admission**

A deferred admission may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Waiver of Graduate Record Exam (GRE)**

A waiver of the Graduate Record Exam may be considered for a UT Arlington undergraduate who has completed an undergraduate degree in Architecture or Interior Design; the student's GPA must equal or exceed 3.50 in all undergraduate coursework completed at UT Arlington. The GRE waiver may also be extended to other UT Arlington undergraduates who have completed an undergraduate degree at UT Arlington; the student's GPA must equal or exceed a 3.50 in all undergraduate coursework completed at UT Arlington. The final decision to waive the GRE also requires a positive review of completed coursework by the graduate advisor to determine the applicant's readiness to study Architecture.

### **Denial of Admission**

Candidates who do not satisfy the requirements for probationary admission will not be admitted.

## **Graduate Teaching Assistant**

To be considered for a Graduate Teaching Assistant position, the candidate must be admitted without provisional conditions. Candidates whose native language is not English must submit an acceptable score on the Test of Spoken English (TSE-A) before arriving in the United States. GTA positions in architecture are limited and are very competitive.

## **Fellowships**

To be considered for a Dean's Fellowship, the candidate must have a favorable review in most of the evaluation criteria. Candidates must be new students coming to UT Arlington, must have a GPA of 3.0 in their last 60 undergraduate credit hours and any graduate credit hours, and must be enrolled in a minimum of 6 hours in both long semesters to retain their fellowships. Fellowships in architecture are limited and very competitive.

Prospective students are strongly encouraged to contact the Graduate Advisor and discuss their options, the admission process, and how the M.Arch program may fit in their professional plans. Students are also invited to visit the School, sit in on classes, and meet faculty and students at the School of Architecture.

## **Degree Requirements**

## Professional Degree Program: Path A (3.5 years)

For applicants holding a baccalaureate (B.A., B.S.) degree in a subject outside architecture, such as liberal arts, sciences, business, or another profession.

A minimum of 104 credit hours in architectural design, theory, and practice is required of Path A candidates for the professional degree in architecture (M.Arch). Due to the rigor of the program (not unlike any other professional school, law or medicine), students entering this program are advised to discontinue outside employment.

Advancement in Professional Degree Program Path A is predicated upon successful and timely completion of required coursework as well as an annual review of the student's portfolio of design work by the Directors Group of the Architecture Program.

In addition to completing an introductory curriculum beginning in the summer of the first semester of enrollment, students must also complete the Path B core curriculum of 39 credit hours. The core curriculum of this course of study is ARCH 5325, 5326, 5329, 5331, 5333, and 24 hours of advanced studio. Students approved by the Directors Group to substitute a design thesis for the last semester of the required studio sequence must also take ARCH 5363 prior to enrollment in ARCH 5693.

Electives must include at least one course from each of the following categories of courses offered by the school: (a) history and theory (b) technology and practice, and (c) allied disciplines (landscape architecture, urban design, housing, and interior design).

### Suggested Course Sequence: Path A

#### First Year

##### *Fall Semester*

5591 Design Studio I  
5301 Principles of Architecture  
5342 Architectural Graphics I

##### *Spring Semester*

5592 Design Studio II  
5323 Construction I  
5343 Architectural Graphics II  
5303 History of Architecture I

##### *Summer Semester*

5593 Design Studio III  
Elective 3 hours

#### Second Year

##### *Fall Semester*

5594 Design Studio IV  
5324 Architectural Structures I  
5304 History of Architecture II  
Elective 3 hours

##### *Spring Semester*

Advanced Studio 6 hours  
5327 Architectural Structures II  
5329 Computers and Design (or approved alternative)  
Elective 3 hours

##### *Summer Semester*

Advanced Studio 6 hours  
5328 Architectural Structures III  
Elective 3 hours

#### Third Year

##### *Fall Semester*

Advanced Studio 6 hours  
5333 Construction II  
5325 Environmental Control Systems I  
Elective 3 hours

##### *Spring Semester*

5672 Comprehensive Studio 6 hours  
5326 Environmental Controls Systems II  
5331 Professional Practice  
Electives 3 hours

## Professional Degree Program: Path B (2 years)

For applicants holding a baccalaureate degree with a major in architecture. Placement in the graduate curriculum may be adjusted on the basis of previous academic and professional work.

A minimum of 54 credit hours is required for the thesis option or 57 for the design thesis and advanced studio options.

The core curriculum for this course of study is ARCH 5325, 5326, 5327, 5328, 5329, 5331, 5333, 18 hours of advanced studio, and 5693 or 5698 or advanced studio. Students in design thesis option must take ARCH 5395 prior to enrollment in ARCH 5693.

Electives must include at least one course from each of the following categories of courses offered by the School of Architecture: (a) history and theory (b) technology and practice and (c) allied disciplines (landscape architecture, urban design, housing and interior design).

### Suggested Course Sequence: Path B

#### First Year

<i>Fall Semester</i>	<i>Spring Semester</i>
Advanced Studio 6 hours	Advanced Studio 6 hours
5325 Environmental Controls I	5326 Environmental Controls II
5333 Construction II	5329 Computers and Design (or approved alternative)
5327 Structures II	5328 Structures III

#### Second Year

<i>Fall Semester</i>	<i>Spring Semester</i>
Advanced Studio 6 hours	5698 Thesis
5331 Professional Practice	or
5395 Issues in Contemporary Architecture (for design thesis option)	5693 Design Thesis
Elective: 3 hours	or
6 hours (advanced studio option)	Advanced Studio 6 hours
	Electives: 6 hours

## Post-Professional Degree Program: Path C (1 year)

For applicants holding a previous professional degree in Architecture (B.Arch.) from an accredited program. The M.Arch, as a second rather than a first professional degree, does not receive NAAB [Accreditation](#).

Thirty credit hours are required of students in Path C with thesis while 33 hours will be required of students with design thesis or advanced studio options.

A minimum of 18 hours is required in architectural program courses including six hours of history/theory as well as thesis, design thesis, or advanced studio. Students are also required to take an advanced studio which may be waived by student request if design proficiency or equivalent experience has been demonstrated. The remainder of the work will be arranged with and approved by the Graduate Advisor to suit the interests of the student. Courses of study provide for an area of specialization or for advanced general studies.

### Suggested Course Sequence: Path C

<i>Fall Semester</i>	<i>Spring Semester</i>
History/Theory: 3 hours	History/Theory: 3 hours
Advanced Studio: 6 hours	Advanced Studio 6 hours
5363 Design Research (for design thesis option)	or
Elective: 3 hours	5693 Design Thesis
	or
	Electives: 9 hours (for design thesis or Advanced

studio options)  
6 hours (for thesis option)

The School of Architecture offers international study programs in Rome, Italy, Barcelona, Spain, Innsbruck, Lund, Sweden and Cottbus, Germany. The Rome Program, conducted for five weeks each summer by UT Arlington faculty, is open to upper division and graduate students and may be used to satisfy history and elective requirements. The Barcelona, Innsbruck and Lund programs are semester-long exchange programs with universities in these cities, with the normal expectation of both studio and elective credit.

### **M.C.R.P. and M.Arch. Dual Degree Program**

Students in this dual program may earn both the Master of City and Regional Planning and the Master of Architecture degrees in a curriculum of 87 semester credit hours. Applicants must meet the admission requirements of both the M.C.R.P. and the M.Arch. programs. City and Regional Planning students wishing to earn the M.Arch degree will be required to take Path A in the Architecture Program unless they have earned an undergraduate degree in architecture which will allow CIRP applicants to take Path B. Programs of study will follow both master's programs, with all of the 15 credit hours of electives in the M.Arch program to be taken in the MCRP program. In addition to the 36 credit hours of architectural core courses, the remainder of coursework will be in the City and Regional Planning program in the School of Urban and Public Affairs with a required thesis proposal and programs of work to be jointly approved by the City and Regional Planning Program and the Architecture Program. A thesis supervisor should be selected from CIRP or the School of Architecture, and committee members should be selected from both faculties.

Course selection and programs of study should be designed with the assistance of the Graduate Advisors in both programs. Only in special instances may students select the thesis substitute plan of the MCRP program. The successful candidate will be awarded both degrees rather than one joint degree.

## **ARCH Courses**

### **ARCH5101 – DIRECTED STUDY: ANALYTICAL SOFTWARE TUTORIAL**

0 Lecture Hours · 1 Lab Hour

Introduction to software relevant to ARCH 5375, ARCH 5376 and ARCH 5377: Excell Argus.

### **ARCH5191 – CONFERENCE COURSE**

1 Lecture Hour · 0 Lab Hours

Special subjects and issues as arranged with individual students and faculty members. May be repeated for credit as topic changes.

### **ARCH5301 – PRINCIPLES OF ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

A survey study of the interrelationships between society, culture, and architecture. Concurrent enrollment of ARCH 5591 and 5342 required.

### **ARCH5302 – LYRICISM IN ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Concepts and models of architecture that express a philosophy concerning feelings, intuition, and creative spontaneity, emphasizing flowing rhythms and nature-inspired forms.

### **ARCH5303 – HISTORY OF ARCHITECTURE I**

3 Lecture Hours · 0 Lab Hours



History of architecture from pre-history through the Middle Ages. Prerequisite: permission of the instructor.

### **ARCH5304 – HISTORY OF ARCHITECTURE II**

**3** Lecture Hours · **0** Lab Hours

History of Architecture from the Renaissance to the present. Prerequisite: ARCH 5303 and permission of the instructor.

### **ARCH5305 – CITY OF ROME**

**3** Lecture Hours · **0** Lab Hours

History, topography, and monuments of Rome and its environs from its legendary founding in 753 B.C. until the 20th Century, with special emphasis on imperial and papal Rome.

### **ARCH5306 – URBAN DESIGN**

**3** Lecture Hours · **0** Lab Hours

Urban design theory, method, and implementation using contemporary and historic examples.

### **ARCH5307 – THE LIFE OF CITIES**

**3** Lecture Hours · **0** Lab Hours

A look at a series of world cities by situating their architectural context, with a particular focus on the impact of 20th century modernism and postmodernism on city fabric. Prerequisites: ARCH 2303 & 2304 or ARCH 5303 & 5304.

### **ARCH5308 – HISTORY OF URBAN FORM**

**3** Lecture Hours · **0** Lab Hours

The history of cities as physical form, influenced by political, economic, and social forces.

### **ARCH5311 – ARCHITECTURAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A review and analysis of the concepts, philosophy, ideology, and models that promulgated 20th Century architectural design. May be repeated for credit as topics change. Prerequisite: permission of the department.

### **ARCH5314 – HISTORIC PRESERVATION AND RESTORATION**

**3** Lecture Hours · **0** Lab Hours

Concepts and implementation of the restoration and preservation of historic structures and places, including archaeological, bibliographic, legislative, institutional, and physical parameters to the retention and adaptive re-use of significant architecture.

### **ARCH5315 – TOPICS IN ARCHITECTURAL HISTORY**

**3** Lecture Hours · **0** Lab Hours

Courses to explore and present selected topics in architecture and related fields of the Ancient Mediterranean, the Classical World, the Middle Ages, the 19th Century, and the Non-Western Traditions. May be repeated for credit as topics change. Prerequisite: ARCH 2303 and 2304.

### **ARCH5316 – MODERN ARCHITECTURE I 1890 TO 1945**

**3** Lecture Hours · **0** Lab Hours

Origins and development of Modern Architecture in Europe from 1890 to World War II, and its further evolution in Europe and America from 1918 to 1945. Prerequisites: ARCH 2303 and 2304

### **ARCH5317 – MODERN ARCHITECTURE II 1945 TO PRESENT**

**3** Lecture Hours · **0** Lab Hours

Architectural developments in Europe, Asia, and America since World War II. Prerequisites: ARCH 2303 and 2304

### **ARCH5319 – HOUSING DESIGN**

**3** Lecture Hours · **0** Lab Hours

Evolution of housing from the end of the 19th Century to the present with particular emphasis on contemporary design methods, techniques and solutions.

### **ARCH5321 – ADVANCED COMPUTER APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

The study and application of specialized computer programs in environmental design. Prerequisites: ARCH 4329 or 5329 or the equivalent, and permission of the instructor.

### **ARCH5323 – CONSTRUCTION I**

**3** Lecture Hours · **0** Lab Hours

Construction materials and structural concepts as used in buildings. Prerequisite: permission of the instructor.

### **ARCH5324 – ARCHITECTURAL STRUCTURES I**

**3** Lecture Hours · **0** Lab Hours

Statics, strength of materials and simple structural systems in buildings. Prerequisite: permission of the instructor.

### **ARCH5325 – ENVIRONMENTAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Illumination, acoustics, climate controls, mechanical and electrical systems, and their significance in the total design.

### **ARCH5326 – ENVIRONMENTAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Climate controls, mechanical and electrical systems, and their significance in the total design. Prerequisite: ARCH 5325.

### **ARCH5327 – ARCHITECTURAL STRUCTURES II**

**3** Lecture Hours · **0** Lab Hours

Continuation of ARCH 5324 with emphasis on structural theory and systems in wood and steel. Prerequisite: ARCH 5324.

### **ARCH5328 – ARCHITECTURAL STRUCTURES III**

**3** Lecture Hours · **0** Lab Hours

Continuation of ARCH 5327 with emphasis on structural theory and systems in masonry and reinforced concrete. Prerequisite: ARCH 5327.

### **ARCH5329 – TOPICS IN COMPUTERS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

Computer aided design, drafting and graphic techniques as applied to architecture. May be repeated for credit as topics change.



### **ARCH5330 – COMPARATIVE STRUCTURES**

**3** Lecture Hours · **0** Lab Hours

Comparative analysis and design of structural systems and construction techniques, including architectural and economic determinants. Prerequisite: ARCH 5328 or permission of the instructor.

### **ARCH5331 – PROFESSIONAL PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Survey of the administrative functions, and the ethical and legal responsibilities of the architect.

### **ARCH5332 – ENERGY USE AND CONSERVATION IN ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Concepts of the efficient use and conservation of energy and their embodiment in the built environment. Prerequisite: permission of the instructor.

### **ARCH5333 – CONSTRUCTION II**

**3** Lecture Hours · **0** Lab Hours

Advanced construction assemblies and methods, including the principles of cost control. Prerequisites: ARCH 5670.

### **ARCH5335 – ADVANCED PROFESSIONAL PRACTICE II: MARKETING DESIGN SERVICES**

**3** Lecture Hours · **0** Lab Hours

A study of the strategies and methods for marketing professional services. Presented as case studies of architecture, interior design, and landscape architecture firms.

### **ARCH5336 – ADVANCED PROFESSIONAL PRACTICE II: PROGRAMMING AND SITE PLANNING**

**3** Lecture Hours · **0** Lab Hours

The course focuses on project programming and the technical aspects of site design.

### **ARCH5337 – SOILS AND FOUNDATIONS**

**3** Lecture Hours · **0** Lab Hours

Soil classifications, field and laboratory identification, physical properties and load-bearing characteristics, retaining walls and foundations. Prerequisite: ARCH 5328 or permission of the instructor.

### **ARCH5339 – DIGITAL TECTONICS/FABRICATION II**

**3** Lecture Hours · **0** Lab Hours

The conceptualizing and making of objects lying outside the traditional scope of architectural practice, including elements of industrial and product design and the development of working prototypes. Prerequisites: None, although Digital Fabrication I is highly encouraged.

### **ARCH5340 – THE EVERYDAY CITY**

**3** Lecture Hours · **0** Lab Hours

Seminar concerned with the examination of theories and practices about creating place(s) from real existing conditions within the everyday city.

### **ARCH5341 – NOTATIONAL DRAWING**

**3** Lecture Hours · **0** Lab Hours

Seminar concerned with analytical drawing techniques and how to use the sketchbook as a tool and

process for architectural production. Emphasis will be on cultivating drawing strategies that will heighten the ability to make observations through first-hand experience and record them with the correct conventions in order to enable recovery for future use in architectural design.

### **ARCH5342 – ARCHITECTURAL GRAPHICS I**

**0** Lecture Hours · **2** Lab Hours

Architectural drawing, perception, projections, and three-dimensional representation. Concurrent enrollment in ARCH 5591 is required.

### **ARCH5343 – ARCHITECTURAL GRAPHICS II**

**2** Lecture Hours · **4** Lab Hours

A continuation of ARCH 5342 with emphasis on more advanced techniques: composition, tone, shades and shadows, and color.

### **ARCH5344 – CONCEPTUAL DRAWING**

**0** Lecture Hours · **3** Lab Hours

Seminar to explore aspects of conceptual drawing for the architect and the relationship of design ideas in the drawing process.

### **ARCH5345 – DIGITAL CONSTRUCTION**

**0** Lecture Hours · **3** Lab Hours

A workshop exploring video cartography using photography, animation, motion graphics and digital video.

### **ARCH5346 – CONSTRUCTION DRAWINGS I**

**2** Lecture Hours · **4** Lab Hours

The techniques of building construction, the communication of technical information, and the process of preparing contract drawings for construction.

### **ARCH5347 – DIGITAL TECHTONICS**

**3** Lecture Hours · **0** Lab Hours

The focus for this seminar is the examination and exploration of full-scale digital fabrication techniques and methodologies. Completion of ARCH 4343 or ARCH 5339 recommended.

### **ARCH5348 – PRINCIPLES OF ARCHITECTURAL PHOTOGRAPHY**

**2** Lecture Hours · **4** Lab Hours

The use of photography as an investigative and presentation medium in architecture. Emphasis on composition in black and white technique.

### **ARCH5349 – ARCHITECTURE PORTFOLIO**

**3** Lecture Hours · **0** Lab Hours

Seminar concerned with goal toward the production of a personal design portfolio.

### **ARCH5350 – VESSELS**

**3** Lecture Hours · **0** Lab Hours

The design of objects for the post-Industrial Age, including vehicles, furniture, jewelry, household objects, and clothing.

### **ARCH5351 – WILDERNESS: A CONDITION OF MIND**

**3** Lecture Hours · **0** Lab Hours

Changing conceptions of wilderness in Western thought, from ancestral prejudices to recent, revolutionary appreciation. Literary and visual documentation.

### **ARCH5355 – HEMISPHERES**

**3** Lecture Hours · **0** Lab Hours

The study and analysis of Japanese arts and contemporary culture. The arts of ceramics, painting, calligraphy, and sculpture are examined. Prerequisite: departmental approval.

### **ARCH5356 – BASIC AUTOCAD**

**0** Lecture Hours · **3** Lab Hours

Preparation for professional work using AutoCAD and a professional file structure system.

### **ARCH5357 – B. I. M. & VISUALIZATION**

**0** Lecture Hours · **3** Lab Hours

To gain a working knowledge of Autodesk Revit and 3D Studio Max. Prerequisites: ARCH 4356, 5356 or INTD 3329.

### **ARCH5358 – ADVANCED VISUALIZATION**

**0** Lecture Hours · **3** Lab Hours

Exploring Architecture using animation, editing and compositing to produce a professional "Story & FORM" presentation. Prerequisite: ARCH 4356, 5356 or INTD 3329.

### **ARCH5359 – WATERCOLOURS**

**3** Lecture Hours · **0** Lab Hours

Seminar with the intent to explore and experience a variety of watercolour techniques and possibilities.

### **ARCH5361 – ARCHITECTURE AND ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

An overview of sustainable design integrated with natural resource conservation.

### **ARCH5362 – STRUCTURAL SYSTEMS IN BUILDINGS**

**3** Lecture Hours · **0** Lab Hours

An overview of various structural systems including those used in long-span and high-rise buildings. Numerical work limited to the explanation of relevant structural concepts. Prerequisite: ARCH 5324.

### **ARCH5363 – DESIGN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Seminar directed toward the understanding of research methods and the programming of an independent design project, leading to the thesis substitute. Graded P/F/R. Prerequisite: Permission of Graduate Advisor.

### **ARCH5370 – ADVANCED DESIGN STUDIO**

**0** Lecture Hours · **4** Lab Hours

Studio course in the generation and development of architectural ideas in formal and environmental contexts. May be repeated for credit. Two of these courses are equivalent to ARCH 5670.

### **ARCH5375 – PROPERTY AND ASSET REPOSITIONING**

**3** Lecture Hours · **0** Lab Hours

The physical planning and design issues impacting project performance levels and asset appreciation.

### **ARCH5376 – PROPERTY DUE DILIGENCE**

**3** Lecture Hours · **0** Lab Hours

Course addresses physical project data collection techniques.

### **ARCH5377 – ASSET RESTRUCTURING**

**3** Lecture Hours · **0** Lab Hours

The processes of property foreclosure and restructuring.

### **ARCH5381 – PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Internship program including work done through an approved architect's office, designed to give practical experience leading to a broader knowledge of the profession. Placement in offices must be approved, and in some cases may also be arranged by the school. Students may enroll in 5381 for half-time employment or 5681 for full-time employment. Students enrolled in Practicum may also participate in the Intern Development Program of the American Institute of Architects. No more than six total credit hours in Practicum are allowed for degree. Graded P/F/R.

### **ARCH5391 – CONFERENCE COURSE**

**3** Lecture Hours · **0** Lab Hours

Special subjects and issues as arranged with individual students and faculty members. May be repeated for credit as content changes. Prerequisite: Permission of Graduate Advisor.

### **ARCH5395 – TOPICS IN ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Studio, lecture or seminar courses to explore and present special topics in architecture and environmental design. May be repeated for credit as topics change.

### **ARCH5591 – DESIGN STUDIO I**

**0** Lecture Hours · **6** Lab Hours

An intensive studio course in architectonic theory and operations. Emphasis on analytic, conceptual, and manipulation procedures.

### **ARCH5592 – DESIGN STUDIO II**

**0** Lecture Hours · **6** Lab Hours

Continuation of ARCH 5591. Studio course emphasizing the interrelationship of formal/spatial ideas, use, and the building fabric. Prerequisite: ARCH 5591.

### **ARCH5593 – DESIGN STUDIO III**

**0** Lecture Hours · **6** Lab Hours

Continuation of ARCH 5592. Studio course emphasizing the interrelationship of formal/spatial ideas, use, and the building fabric with special attention to the urban context. Prerequisite: ARCH 5592.

### **ARCH5594 – DESIGN STUDIO IV**

**0** Lecture Hours · **6** Lab Hours

Continuation of ARCH 5593. Emphasis on complex building designs in urban environments. Off campus study may be substituted.

### **ARCH5670 – ADVANCED DESIGN STUDIO**

**0** Lecture Hours · **9** Lab Hours

Studio course emphasizing the analysis and design of building aggregations within the urban context. May be repeated for credit.

## **ARCH5672 – ADVANCED DESIGN STUDIO COMPREHENSIVE**

**0** Lecture Hours · **9** Lab Hours

Comprehensive studio course emphasizing the analysis and design of building aggregations within the urban context. May be repeated for credit.

## **ARCH5681 – PRACTICUM**

**6** Lecture Hours · **0** Lab Hours

Internship program including work done through an approved architect's office, designed to give practical experience leading to a broader knowledge of the profession. Placement in offices must be approved, and in some cases may also be arranged by the school. Students may enroll in 5381 for half-time employment or 5681 for full-time employment. Students enrolled in Practicum may also participate in the Intern Development Program of the American Institute of Architects. No more than six total credit hours in Practicum are allowed for degree. Graded P/F/R.

## **ARCH5691 – CONFERENCE COURSE**

**6** Lecture Hours · **12** Lab Hours

Special subjects and issues as arranged with individual students and faculty members. May be repeated for credit. Prerequisite: Permission of Graduate Advisor.

## **ARCH5693 – DESIGN THESIS**

**6** Lecture Hours · **0** Lab Hours

Individual study project conducted by a supervising committee, with program and statement of intent to be filed with the Graduate Advisor during the previous semester. Graded R. Prerequisite: ARCH 5363

## **ARCH5695 – TOPICS IN ARCHITECTURE**

**6** Lecture Hours · **0** Lab Hours

Studio, lecture or seminar courses to explore and present special topics in architecture and environmental design. May be repeated for credit as topics change. Prerequisite: Permission of Graduate Advisor.

## **ARCH5698 – RESEARCH THESIS**

**6** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
    - Architecture
    - Landscape Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Landscape Architecture

School of Architecture

Web [www.uta.edu/architecture/](http://www.uta.edu/architecture/)

Phone 817.272.2801

Fax 817.272.5098

---

### Degrees / Certificates

#### Master's Degrees

Landscape Architecture, M.L.A.

---

### Graduate Faculty

#### Associate Professor

[Pat Taylor](#)

---

### Graduate Advisors

#### [Pat Taylor](#)

*Landscape Architecture, M.L.A.*

---

### Department Information

#### Courses

## Department Information

### Master of Landscape Architecture

#### Objective

#### Admissions Requirements

- **Unconditional Admission**
- **Provisional Admission**
- **Probationary Admission**
- **Deferred Admission**

- **International Student Admission**

**Graduate Teaching/Research Assistantships  
Fellowships and Scholarships  
Degree Requirements**

- **First Professional Degree Program**
- **Advanced Standing**

## **Objective**

The mission of the Program in Landscape Architecture is to educate for ultimate leadership in the landscape architecture profession. This mission requires fostering rigorous scholarly inquiry of the discipline, and the preparation of knowledgeable practitioners.

The Program in Landscape Architecture has the dual objectives of providing students with a core of design and technical skills in combination with experiences in pure and applied research. This duality prepares students for identifying and solving problems in the profession through design and research, and it is a Program focus. The Program in Landscape Architecture also prepares students to enter practice in private, public, academic, and research organizations.

Student preparation is enhanced by specialized coursework taken inside and outside of landscape architecture and by the topic of one's thesis. Students are directed to select thesis committee members early-on and to select specialized courses which reinforce students' areas of primary interest in landscape architecture.

The Program in Landscape Architecture is fully accredited by the Landscape Architectural Accreditation Board of the American Society of Landscape Architects. Graduates from the Program are qualified to sit for the Landscape Architecture Registration Exam which, when successfully passed, qualifies individuals to practice as landscape architects in the State of Texas.

## **Admissions Requirements**

Applicants must meet the general requirements of the Graduate School. A personal interview with the Director, Graduate Advisor or members of the landscape architecture faculty is strongly recommended. Three letters of recommendation are required, and it is suggested that at least two of the letters come from former educators or academic contact. Applicants also are required to submit scores from the Graduate Record Exam (GRE). Average GRE scores of successful applicants since 1998 have been approximately 550 Verbal and 550 Quantitative. Also required is a grade point average (GPA) of 3.00 as calculated by the Graduate School.

Applicants holding first professional degrees in landscape architecture, or in some cases degrees related to landscape architecture (such as architecture, engineering, environmental design, horticulture, interior design, planning, and the like) are required to submit portfolios reflecting the applicants' professional and/or academic experiences and interests. Portfolios are assessed according to proficiency in design, presentation and layout, technical skills, and content, similar to criteria used in design studios.

Applicants who have a weakness in one of the criteria for admission can enhance their credentials with strengths in the remaining criteria.

Applicants can be admitted according to four conditions: Unconditional; Provisional; Probationary; and, Deferred. Applicants who do not meet the criteria of one of these conditions will be denied admission to the Program.

### **Unconditional Admission**

Applicants must possess a bachelor's degree from an accredited college or university. Transcripts from all previous college or university work, along with scores from the Graduate Record Exam (GRE), and three letters of recommendation are required of all applicants. In addition, applicants

should have a minimum Grade Point Average (GPA) of 3.0, as calculated by the Graduate School. Applicants holding the first professional degree in landscape architecture, or a related field, must submit a portfolio.

### **Provisional Admission**

Those who have submitted their applications forms, but whose packets are incomplete, can be admitted provisionally if their GPA meets minimum requirements, and if the Program and the Graduate School have received official transcripts. In this case, incomplete materials could include letters of recommendation, GRE scores, and/or portfolios.

### **Probationary Admission**

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, GRE scores, and GPA), can be admitted on probation, with the condition that they make no less than a B in the first 12 hours of coursework in landscape architecture. Such students must complete no fewer than 9 credits during the semester in which they are on probation.

### **Deferred Admission**

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, GRE scores, and GPA), and/or who have not submitted all of the materials required for unconditional admission, can have their applications deferred for one semester, until outstanding requirements and criteria are met.

### **International Student Admission**

International applicants must meet the Degree Requirements (letters of recommendation, GRE scores, and GPA), and must be admitted in one of the admission categories described above. In addition, applicants whose native language is not English must have a demonstrated speaking ability in English. They also must meet the Program's minimum required score of 575 on the paper exam, or an equivalent score on the computer based- or internet-based tests, on the Test of English as a Foreign Language (TOEFL). International applicants who do not meet the Program's minimum TOEFL score, must complete extramural training in English, as approved by the Program and the Graduate School.

## **Graduate Teaching/Research Assistantships**

To be considered for a Graduate Teaching or Research Assistantship, the candidate must be admitted without provisional conditions. In order to be eligible for teaching assistantships, students whose native language is not English, must complete extramural training in English as approved by the Program and the Graduate School.

## **Fellowships and Scholarships**

To be considered for fellowships or scholarships in the Program the candidate must have a favorable review in most of the evaluation criteria. Fellowships and scholarships in landscape architecture are limited and very competitive. Generally, candidates must be new students coming to UT Arlington, must have a GPA of 3.0 in their last 60 undergraduate credit hours and any graduate hours, and must be enrolled in a minimum of 9 hours in both long semesters to retain their fellowships or scholarships.

## **Degree Requirements**

### **First Professional Degree Program**

The core curriculum for the Program in Landscape Architecture prepares students holding a college degree in a field other than landscape architecture or a related design discipline to complete the requirements for the first professional degree in landscape architecture. The core



curriculum also provides students with the basic equivalent of a bachelor's degree in landscape architecture. For full-time students with degrees from other non-design disciplines, the core usually takes three semesters to complete. For all students, electives must be concentrated in areas of interest which support the student's thesis and/or the student's professional objectives.

An approved degree plan must be submitted no later than the start of the student's second semester of graduate work.

The following coursework is a suggestion to meet the Program's mission. Each student will be counseled, based upon interests and background, to develop an appropriate degree plan.

#### The Core Curriculum

##### **Semester 1**

LARC 5661 Design Studio I  
LARC 5320 Communications for Landscape Architects  
LARC 5301 Site Planning and Development Processes  
LARC 5330 Plant Identification and Ecology  
Total Credit Hours: 15

##### **Semester 2**

LARC 5662 Design Studio II  
LARC 5382 Urban Design Seminar  
LARC 5312 Comprehensive History and Theory  
LARC 5331 Planting Design  
Total Credit Hours: 15

##### **Semester 3**

LARC 5663 Design Studio III: Site Planning  
Landscape Architecture Elective (3 hours)  
LARC 5313 History and Theory of Landscape Architecture II  
LARC 5321 Advanced Communications (or approved substitute)  
Total Credit Hours: 15

After completing 45 credit hours, the first professional degree student is evaluated by means of an academic review and portfolio review by the Graduate Studies Committee. The committee identifies areas of strength and weakness in the student's performance and recommends appropriate action.

Upon completion of the three core semesters, the student is required to develop an area of specialization or primary interest. The student must consult with faculty advisors to complete this step, which includes a preliminary agreement between student and faculty advisors regarding the specialization or primary interest and the appropriate research method to support it. If a student is interested in Advanced Landscape Architecture, for example, a probable program of study could look like this:

#### **Advanced Landscape Architecture**

##### **Semester 4**

LARC 5664 Design Studio IV (CAD experience required)  
LARC 5340 Professional Practice  
LARC 5380 Research Methods in Landscape Architecture  
LARC 5302 Land Development Planning  
Total Credit Hours: 15

##### **Semester Between Academic Year 2 and 3**

LARC 5681 Professional Practicum or  
LARC 5695 Independent Study Abroad or  
LARC 5683 Independent Study Area of Specialization or Controlled Electives  
LARC 5660 Enrichment Design Studio (if necessary)  
Total Credit Hours: 6

### **Semester 5**

LARC 5665 Design Studio V

Advanced or Independent Study in Landscape Architecture (9 hours)

Total Credit Hours: 15

### **Semester 6**

LARC 5698 Thesis

LARC 5294 Master's Comprehensive Examination

Advanced or Independent Study in Landscape Architecture (3 hours)

Total Credit Hours: 11

Minimum Credit Hours Required for Graduation: 92

Students pursuing other primary areas of interest also must consult with appropriate faculty advisors for approval.

## **Advanced Standing**

Students from backgrounds other than landscape architecture or its related fields must complete the 92 credits required in the curriculum. Students with degrees and/or professional experience in fields related to landscape architecture (such as architecture, engineering, environmental design, horticulture, interior design, planning and the like) may apply for advanced standing, allowing them to enter the academic phase (second year) of the curriculum. Advanced standing in these cases requires a minimum of 62 total credit hours for graduation.

Students with first professional degrees in landscape architecture also may apply for advanced standing, allowing them to enter the research (third year) phase of the curriculum. Advanced standing in these cases requires a minimum of 30 total credit hours for graduation.

### **Minimum Program for Advanced Standing**

(For students from fields of study related to landscape architecture)

#### **Semester 1**

LARC 5663 Design Studio III

LARC 5330 Plant Identification and Ecology

LARC 5321 Advanced Communications (or approved substitute)

LARC 5312/5313 Comprehensive History and Theory

Total Credit Hours: 15

#### **Semester 2**

LARC 5664 Design Studio IV (CAD experience required)

LARC 5342 Landscape Technology II

LARC 5332 Planting Design

LARC 5302 Land Development Planning

Total Credit Hours: 15

#### **Semester Between Academic Year 1 and 2**

LARC 5681 Professional Practicum or

LARC 5695 Independent Study Abroad or

LARC 5683 Independent Study Specialization

Total Credit Hours: 6

#### **Semester 3**

LARC 5665 Design Studio V

LARC 5340 Professional Practice

LARC 5380 Research Methods in Landscape Architecture

Study in primary area of interest (3 hours)

Total Credit Hours: 15

#### **Semester 4**

LARC 5698 Thesis

LARC 5294 Master's Comprehensive Examination

Study in specialization (3 hours)  
Total Credit Hours: 11  
Minimum Credit Hours Required for Graduation: 62

### **Minimum Program for Advanced Standing**

(For students with first professional degrees in landscape architecture from LAAB accredited schools)

#### **Semester 1**

LARC 5665 Design Studio V  
LARC 5380 Research Methods in Landscape Architecture  
Specialization Option Courses (6 hours)  
Total Credit Hours: 15

#### **Semester 2**

LARC 5698 Thesis  
LARC 5294 Master's Comprehensive Examination  
LARC 5302 Land Development Planning  
Specialization Option Courses / Independent Study (4 hours)  
Total Credit Hours: 15

Minimum Credit Hours Required for Graduation: 30

## **LARC Courses**

### **LARC5191 – CONFERENCE COURSE IN LANDSCAPE ARCHITECTURE**

1 Lecture Hour · 0 Lab Hours

Special subjects and issues in landscape architecture that may be studied independently under faculty supervision. May be repeated for credit.

### **LARC5294 – MASTERS COMPREHENSIVE EXAMINATION**

2 Lecture Hours · 0 Lab Hours

Must be taken concurrently with Thesis. Directed study, consultation, and comprehensive examination of coursework, leading to and including the thesis. Oral presentation required. Required of all Master of Landscape Architecture students in the semester in which they plan to graduate.

### **LARC5301 – SITE PLANNING AND DEVELOPMENT PROCESSES**

3 Lecture Hours · 0 Lab Hours

Presents the processes and practices of site planning and development, including site inventory, analysis, and assessment of potential building sites. Students examine the natural, cultural, and social systems that affect design decisions, as well as the language and literature of landscape architecture.

### **LARC5302 – LAND DEVELOPMENT PLANNING**

3 Lecture Hours · 0 Lab Hours

The process of land development planning for landscape architects. Detailed expansion of LARC 5301. Uses case studies in land development planning to instruct students in the environmental, economic, legal, and visual issues associated with the land planning process.

### **LARC5312 – HISTORY AND THEORY OF LANDSCAPE ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Traces landscape planning and design from pre-history through Egyptian, Greek, Roman, Islamic and Medieval gardens to Italian, French, and English landscape approaches, culminating in the mid-19th century. Relates landscape design to societal, cultural, technological and belief systems of each period.

Culminates in the contemporary history of the profession from Andrew Jackson Downing to the present day. The growth and development of the profession, professional education, the environmental movement, large scale regional land planning and significant landscape architectural projects of the past century and a half.

### **LARC5313 – HISTORY AND THEORY OF LANDSCAPE ARCHITECTURE II**

3 Lecture Hours · 0 Lab Hours

The contemporary history of the profession from Andrew Jackson Downing to present day. The growth and development of the American Society of Landscape Architects (ASLA), professional education, the environmental movement, large scale regional planning, and significant landscape architectural projects of the past century.

### **LARC5320 – COMMUNICATIONS FOR LANDSCAPE ARCHITECTS**

2 Lecture Hours · 4 Lab Hours

Primary class for the development of graphic and communication skills in landscape architecture. Provides a method for transferring conceptual ideas into legible graphic presentations. Should be taken concurrently with LARC 5661 Design Studio I.

### **LARC5321 – ADVANCED COMMUNICATIONS**

2 Lecture Hours · 4 Lab Hours

Presentation techniques; expansion on graphic thinking and communication presented in LARC 5320.

### **LARC5323 – STUDIO TEACHING**

0 Lecture Hours · 9 Lab Hours

### **LARC5324 – LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL ART SEMINAR**

2 Lecture Hours · 2 Lab Hours

Siting and creating works of art; analysis of the creative processes of the two different-yet-related disciplines; case studies of built works. Communication of ideas through environmental media.

### **LARC5330 – PLANT IDENTIFICATION AND ECOLOGY**

2 Lecture Hours · 4 Lab Hours

Examines the design characteristics and horticultural requirements of a broad palette of plants adapted to the North Texas region. Field trips are required to learn the plants at both ornamental gardens and local ecological communities.

### **LARC5331 – PLANTING DESIGN**

2 Lecture Hours · 4 Lab Hours

Design applications of plant material. Students apply the design problem-solving approach to the detailed aspects of planting design and complete a progressively-more-difficult series of problems to practice techniques and methods of plant manipulation that encompass both the aesthetic and functional objectives of planting design. Prerequisites: LARC 5330; 5661; 5662.

### **LARC5340 – PROFESSIONAL PRACTICE**

3 Lecture Hours · 0 Lab Hours

Ethical, legal, and administrative aspects of the public, private, and academic spectrums of practice in landscape architecture.

### **LARC5341 – LANDSCAPE TECHNOLOGY I**

2 Lecture Hours · 4 Lab Hours

Surveying, site grading, storm water management, vertical and horizontal curves and an overview of the construction documentation process employed by landscape architects.

### **LARC5342 – LANDSCAPE TECHNOLOGY II**

2 Lecture Hours · 4 Lab Hours

Examines hardscape materials and methods typical to the practice of landscape architecture, through readings, examinations, design detail exercises, and the creation of a complete set of construction documents. Construction site tours are required with area industry professionals. Prerequisites: LARC 5341.

### **LARC5344 – PARK AND RECREATION DESIGN AND PLANNING**

2 Lecture Hours · 2 Lab Hours

History, data collection, program formulation, and design principles for public and private park and recreation systems and sites. Includes management objectives, operations and maintenance, and public input as planning components.

### **LARC5350 – LANDSCAPE ARCHITECTURE COMPUTER APPLICATIONS**

2 Lecture Hours · 4 Lab Hours

Examines various computer applications currently used in office practice. Computer applications used for office management, site analysis, design development, construction documentation, and cost estimating. Introduction to computer aided design applications and the underlying theories of application.

### **LARC5351 – ADVANCED COMPUTER AIDED DESIGN**

2 Lecture Hours · 4 Lab Hours

Focus is on a methodology for designing and illustrating with computer graphics that is very compatible with the design and production workflow of most landscape architecture offices. All work is done in an AutoCAD environment using AutoCAD for modeling and Accurender for re-rendering still images, interactive panoramas, and both viewpoint and key-frame animations. Photoshop is used for the creation of texture maps, image manipulation and photo-montage. Emphasis is on working intuitively and creatively. Prerequisites: LARC 5350.

### **LARC5368 – DESIGN PRACTICUM**

3 Lecture Hours · 0 Lab Hours

An internship program which includes approved work done in a landscape architect's office or one of the related design fields. The purpose of the practicum is to provide students with practical design experience. Students may enroll in 5368 for half-time employment or 5668 for full time employment.

### **LARC5380 – RESEARCH METHODS IN LANDSCAPE ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Theories of practical research and methods of applying them as they relate to landscape architecture. Includes research program development, data collection and analysis, thesis proposal writing, and research tools and techniques. Emphasis is on qualitative methods. Prerequisites: LARC 5661, 5662.

### **LARC5382 – URBAN DESIGN SEMINAR**

3 Lecture Hours · 0 Lab Hours

Advanced presentation and discussion of issues related to contemporary and historic urban design. Students actively present and lead informed discussions on topics such as population density, environmental management, cultural landscapes, land/water intersections, land-use patterns, circulation and legibility, human communities as living organisms, public art, urban form, and urban/rural interchange. Field trips required.

### **LARC5391 – CONFERENCE COURSE IN LANDSCAPE ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Special subjects and issues in landscape architecture that may be studied independently under faculty supervision. May be repeated for credit.

### **LARC5395 – SELECTED TOPICS IN LANDSCAPE ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Selected studio or lecture course offerings in specific areas of expertise or interest. Course allows the program the flexibility to address the ever-changing needs of students and the profession by offering courses beyond the scope of the core curriculum. May be repeated for credit.

### **LARC5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Independent research and presentation of findings under the direction of a supervising committee. The findings of the thesis should extend the boundaries of the professional discipline by either presenting new and unique ideas or information, or by interpreting existing knowledge from a different perspective.

### **LARC5623 – STUDIO TEACHING PRACTICUM**

**0** Lecture Hours · **9** Lab Hours

Students spend one semester as a teaching assistant in the studio sequence under the supervision of the assigned faculty member. They will observe the methods employed in the studio and prepare a comprehensive evaluation of the studio in conjunction with the instructor. The students will oversee one short studio project and evaluate its success or failure based on the criteria learned in LARC 5322 and the goals and objectives of the test project.

### **LARC5660 – ENRICHMENT DESIGN STUDIO**

**0** Lecture Hours · **9** Lab Hours

Review of the principles and processes of design presented in Design Studios I, II, and III. Provides an opportunity for students with weak design and graphic skills to improve those skills to meet requirements for Design Studio IV. Course can use design competitions as projects.

### **LARC5661 – DESIGN STUDIO I**

**3** Lecture Hours · **9** Lab Hours

A design course for students with no background in landscape architecture or design. Outlines the site planning and site design decision-making process. Focuses on providing students with the verbal, intellectual, and graphic tools necessary to successfully tackle a design problem and bring it to a schematic level of completion. It is highly recommended that this course be taken concurrently with LARC 5320.

### **LARC5662 – DESIGN STUDIO II**

**0** Lecture Hours · **9** Lab Hours

A continuation of 5661. Basic design principles and their application to three-dimensional spaces. Examines how humans occupy exterior space and combines this information with the principles of design to create garden scale models. Models are used as a medium for design expression. Landscape character, design simulation, landscape media, landscape context, and human spatial experience are included.

### **LARC5663 – DESIGN STUDIO III: SITE PLANNING**

**0** Lecture Hours · **9** Lab Hours

Features the process of solving complicated site planning and site design problems. Each phase of the site planning process is examined in detail by undertaking one or more studio problems that involve resolution of issues related to existing site conditions, program development, conceptual design, design development, and design detailing.

### **LARC5664 – DESIGN STUDIO IV: ENVIRONMENTAL PLANNING**

**0** Lecture Hours · **9** Lab Hours

Expands the student's concept of the environment as a large scale ecologic unit independent of political

boundaries. Primary focus is on Geographic Information Systems (GIS); therefore, computer-aided design experience is a prerequisite. Presents a process of solving large scale planning problems through data gathering and information processing techniques commonly used by landscape architects employed in environmental planning.

### **LARC5665 – DESIGN STUDIO V: THE URBAN LANDSCAPE**

**0** Lecture Hours · **12** Lab Hours

The summary studio of the design sequence. Basic design principles are reiterated and problems are introduced which require interaction with architects, planners, urban designers, developers, or administrators, on complex urban projects. Course often uses design competitions as projects.

### **LARC5668 – DESIGN PRACTICUM**

**6** Lecture Hours · **0** Lab Hours

An internship program which includes approved work done in a landscape architect's office or one of the related design fields. The purpose of the practicum is to provide students with practical design experience. Students may enroll in 5368 for half-time employment or 5668 for full time employment.

### **LARC5691 – CONFERENCE COURSE IN LANDSCAPE ARCHITECTURE**

**6** Lecture Hours · **0** Lab Hours

Special subjects and issues in landscape architecture that may be studied independently under faculty supervision. May be repeated for credit.

### **LARC5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Independent research and presentation of findings under the direction of a supervising committee. The findings of the thesis should extend the boundaries of the professional discipline by either presenting new and unique ideas or information, or by interpreting existing knowledge from a different perspective.

### **LARC5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Independent research and presentation of findings under the direction of a supervising committee. The findings of the thesis should extend the boundaries of the professional discipline by either presenting new and unique ideas or information, or by interpreting existing knowledge from a different perspective.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[Accounting](#)

[Business Administration](#)

[Economics](#)

[Finance and Real Estate](#)

[Health Care Administration](#)

[Information Systems & Operations Management](#)

[Management](#)

[Marketing](#)

[College of Education and Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public Affairs](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Accounting

College of Business

### Chair Chandra Subramaniam

Web [www2.uta.edu/accounting/](http://www2.uta.edu/accounting/)

Email [accounting@uta.edu](mailto:accounting@uta.edu)

Phone 817.272.3481

Fax 817.272.5793

[409 Business Building](#)

---

### Degrees / Certificates

#### Master's Degrees

Accounting, M.S.

Professional Accounting, M.P.A.

Taxation, M.S.

#### Doctoral Degrees

Accounting, Ph.D.

#### Certificates

Tax Certificate

---

### Graduate Faculty

[Sandra Bitenc](#)

[Billy Brewster](#)

[Terra Mcghee](#)

[Stephanie Rasmussen](#)

#### Professor

[Thomas Hall](#)

[Li-Chin Jennifer Ho](#)

[Donald McConnell](#)

[Martin Taylor](#)

[Jeffrey Tsay](#)

#### Associate Professor

[Bethane Hall](#)

[Richard Mark](#)

[Terrance Skantz](#)

[Chandra Subramaniam](#)

#### Assistant Professor

[Jap Efendi](#)

[Glyn Winterbotham](#)

#### Assistant Adjunct Professor

[Sandra Henderson](#)



**Senior Lecturer**

**John Repsis**

**Lecturer**

**Carly Andrews**

---

**Graduate Advisors**

**Gregory Frazier**

*Accounting, Ph.D.*

**John Repsis**

*Accounting, M.S.  
Professional Accounting, M.P.A.  
Taxation, M.S.*

**Chandra Subramaniam**

*Accounting, M.S.  
Accounting, Non-Degree Seeking  
Professional Accounting, M.P.A.  
Professional Accounting, Non-Degree Seeking  
Tax Certificate  
Taxation, M.S.  
Taxation, Non-Degree Seeking*

**Martin Taylor**

*Accounting, Ph.D.*

---

**Department Information**

**Courses**

## Department Information

**Objective**

**Careers in Accounting**

**Accreditation**

**Admissions Requirements**

- **Degree-Seeking Students**
- **Regular Admission**

**University and College Fellowship/Scholarship Awards**

**Classroom Time Flexibility**

**Departmental Grade and Graduation Requirements**

**Professional Program in Accounting**

- **PPIA Enrollment and Course Sequence**
- **PPIA Admission Requirements**
- **Admission Criteria**

**Master of Science in Accounting**

***Proposed Admissions Changes Effective August 2014 >>***

- **M.S. in Accounting Tracks**

**Master of Professional Accounting (MPA)****Master of Science in Taxation**

- ***Proposed Admissions Changes Effective August 2014 >>***

**Certificate in Taxation**

- **Admission Requirements**
- **Information About Your Status as a Special Student**
- **Application to a Graduate Program**
- **Terms of Admission**
- **Current Graduate Students**

**Objective**

The objective of the Master of Professional Accounting, the Master of Science in Accounting, and the Master of Science in Taxation degree programs is to prepare students for professional careers in the public, private, or governmental sector. As a part of this objective, these programs are designed to provide the educational background to become a Certified Public Accountant or to attain other professional certifications. The MPA program, appropriate for students without significant prior study in accounting, is also designed to provide an understanding of selected fields such as management, finance, economics, and business law. The MS in Accounting and MS in Taxation are more specialized degrees which build on the individual's prior background in accounting and business-related subjects.

The department also offers a Certificate in Taxation. The objective of this certificate program is to serve degreed professionals who wish to update or add to their knowledge of taxation.

**Careers in Accounting**

Accounting is a career without limits. Accountants serve as analysts, consultants, and problem-solvers in business and government. Earning an accounting degree opens up a diverse array of career opportunities including: partner in an international accounting or consulting firm, corporate controller, chief financial officer, director of internal auditing, financial planner, or commercial lender. Compensation is highly competitive with excellent geographic mobility.

Students of accounting learn to use and control information technology systems, prepare and analyze financial reports, structure business transactions, and develop effective business plans. Individuals who like being challenged by a variety of situations and technologies and who enjoy identifying, analyzing, and solving problems are well-suited to majoring in accounting. Additional information about the accounting profession and its diverse opportunities can be obtained at <http://www.aicpa.org/BECOMEACPA/Pages/BecomeaCPA.aspx>.

**Accreditation**

The University of Texas at Arlington, its College of Business Administration and the Department of Accounting are accredited by AACSB - The International Association for Management Education. The department is also a member of the Federation of Schools of Accountancy.

**Admissions Requirements****Degree-Seeking Students****Regular Admission**

The Department of Accounting's (the Department) admission criteria for its master's programs

have been developed to conform to State of Texas requirements and are based on the general admission requirements of the Graduate School. Applicants are encouraged to include a resume that highlights professional and personal accomplishments with their application.

All applications for admission are reviewed individually. Admission decisions are based on factors associated with academic success in graduate study and may include any of the following criteria:

1. undergraduate grade point average,
2. graduate grade point average,
3. GMAT scores,
4. professional work experience,
5. professional certification or licensure,
6. letters of reference,
7. the applicant's personal statement,
8. prior successful completion of a baccalaureate degree,
9. prior successful completion of a postbaccalaureate degree, and
10. general and specific program accreditation status of the applicant's degree granting institution(s).

Standardized test scores are not used as the sole criterion for admitting applicants or the primary criterion for denying admission to applicants.

Depending on the circumstances applicants may:

1. Have their application denied or deferred; or
2. Receive unconditional, probationary, or provisional admittance.

Applicants whose documentation does not satisfactorily demonstrate readiness for graduate study may be denied admission. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

Unconditional admission is granted to applicants whose documentation clearly demonstrates a readiness for graduate study. Probationary admission may be granted to individuals who do not meet the Department's admission requirements but who nevertheless show promise for successful graduate study. Students admitted on this basis must meet certain academic requirements to remain in the program (such as no grade less than 'B' for first 12 hours of graduate study). An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisional status lasts through the initial semester of admission.

### **Admission Criteria**

The Department has four alternative sets of conditions that allow applicants to be unconditionally admitted without review by the Department's Admission and Petition Committee. The Departmental graduate advisor reviews all applications and determines if they qualify for admission under one of these four sets of criteria. Applicants who do not satisfy any of the following sets of conditions for unconditional admission are referred to the Departmental Admission and Petition Committee for consideration.

#### **Unconditional Admission without Committee Review:**

Applicants qualify for unconditional admission without the need for review by the Departmental Admission and Petition Committee if they meet any one of the following four sets of unconditional admission criteria:

##### **Unconditional Admission Set #1: GPA/GMAT Condition**

Individuals who meet each of the following five conditions are given unconditional admission:

- GPA on last 60 hours of undergraduate work is at least 3.0;
- GMAT total score is at least 500;

- GMAT verbal score at the 30<sup>th</sup> percentile or higher;
- GMAT quantitative score at the 30<sup>th</sup> percentile or higher; and
- Applicant holds an earned bachelor's degree from an accredited college or university.

#### **Unconditional Admission Set #2: GMAT Waiver Condition**

This unconditional admission set #2 focuses on the applicant's performance in UTA's undergraduate accounting program. Individuals who meet all of the following seven conditions are given unconditional admission.

- Graduated from UTA (with a bachelor's degree) within three years of expected entrance into the graduate program;
- Completed at least 60 semester hours at UTA;
- Majored in accounting at UTA;
- Has a 3.25 overall GPA at UTA;
- Has a 3.25 accounting GPA at UTA;
- Has a 3.25 GPA in all advanced work at UTA; and
- Has a 3.25 GPA in the last 60 semester hours completed at UTA.

Applicants may receive provisional admission under this set if they have not yet completed their last undergraduate semester at UTA. The provision is removed when they are awarded their undergraduate degree.

Applicants should be aware that this waiver applies for admission only to the Department's graduate programs. Other UTA graduate programs (such as the College of Business' MBA program) may require submission of a GMAT score before admission or transfer into their program. The Department will not accept GMAT waivers given to students in other graduate programs unless the student meets all the requirements specified above.

#### **Unconditional Admission Set #3: Professional Credential Condition**

This unconditional admission set # 3 focuses on the applicant's undergraduate grade point average and possession of a recognized professional accounting credential or license. Individuals who meet each of the following four (4) conditions are given unconditional admission.

- Graduated from an accredited college or university with an earned bachelor's degree;
- Has an overall undergraduate GPA of at least 3.0;
- Has an overall undergraduate major GPA of at least 3.0; and
- Holds a current and recognized professional accounting credential or license, including but not limited to:
  - Certified Public Accountant,
  - Certified Management Accountant,
  - Certified Internal Auditor,
  - Certified Financial Analyst,
  - Certified Fraud Examiner,
  - Chartered Accountant, or
  - Certified Valuation Analyst.

#### **Unconditional Admission Set 4: Successful Postbaccalaureate Education Condition**

This unconditional admission set #4 focuses on the applicant's previous successful completion of a postbaccalaureate degree with an acceptable graduate grade point average. Individuals who meet each of the following three conditions are given unconditional admission.

- Graduated from an AACSB accredited college or university with a postbaccalaureate degree (e.g., master's degree, JD degree, LLM degree, MD degree, Ph.D. degree);
- Has an overall graduate GPA of at least 3.0; and
- Has a graduate GPA of at least 3.0 in the major area.

## Admission with Committee Review

Applicants who require committee review are considered for admission using the following factors, with no single factor used as the primary criterion for making admission decisions.

- Undergraduate and graduate GPA (overall, major, and last 60 hours) and program accreditation status of the applicant's degree granting institution;
- Score on the GMAT (including separate scores on the verbal and quantitative portions);
- Applicant's professional work experience and professional certification/licensure; and
- Letters of reference and personal statement provided by the applicant.

To qualify for unconditional admission with committee review, applicants must hold an earned bachelor's degree from an accredited college or university and are expected to show significant strength in at least three of the four areas listed above. The Admission and Petition Committee may also grant probationary admission to applicants who demonstrate significant strength in at least two of the four areas listed above.

By considering the totality of the applicant's circumstances, including the factors listed above, the Admission and Petition Committee will evaluate an applicant's readiness to successfully complete one of the Department's graduate programs. Depending on the judgment of the committee, the decision may be to grant unconditional admission, probationary admission, provisional admission, deferred admission, or to deny admission. The decision of the committee is final.

International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum of 40 on the TSE, a minimum of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement. International applicants who score below the minimums above may be admitted with the condition that they pass an English proficiency examination or complete UTA's Graduate English Skills Program prior to beginning graduate coursework. However, the TOEFL score requirement is waived if the applicant holds either a bachelor's or a master's degree from an AACSB accredited US college or university.

## University and College Fellowship/Scholarship Awards

The Department of Accounting follows all applicable Graduate School criteria when awarding graduate fellowships and scholarships. Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as a sole criterion or the primary criterion for determining fellowship and/or scholarship support.

## Classroom Time Flexibility

All of the graduate degree programs offered by the Department of Accounting can be completed by individuals who work full-time and wish to attend class in the evenings. Each student's program of work must be approved by the Accounting Graduate Advisor and must include a minimum of 27 semester hours taken at The University of Texas at Arlington. Courses which are not considered suitable to a student's program of work will not be approved. During the final semester, students who have written a thesis must defend the thesis in an oral examination.

## Departmental Grade and Graduation Requirements

Students enrolled in accounting degree programs are subject to the grade requirements for academic probation and graduation as specified under the general regulations of the Graduate School. In addition to the Graduate School's Regulations, the Department of Accounting will not allow any course in which a student earns a D or F to be applied toward the student's program of work.

## Professional Program in Accounting

The Department of Accounting offers a Professional Program in Accounting (PPIA) that allows students to earn both a bachelor's degree and master's degree upon completion of an integrated 152-hour program. This integrated program can be completed in approximately one less semester than required to earn separate bachelor's and master's degrees. Students completing this program will have earned sufficient hours to sit for the CPA exam.

### PPIA Enrollment and Course Sequence

Students will get maximum effectiveness from the PPIA program if they apply two semesters before completing undergraduate coursework.

Upon admission to the PPIA, students will meet with the Graduate Advisor to obtain their graduate degree plan. Students will continue following their undergraduate plan until all appropriate undergraduate coursework is completed. Courses omitted from the undergraduate coursework will be taken as part of the MS program. These courses will be taken later as part of the graduate program and will be applied to both the graduate degree and the undergraduate accounting degree. At the beginning of the last semester of undergraduate enrollment, PPIA students will formally apply for graduate admission. At this point, students should again meet with the graduate advisor to ensure a smooth transition to graduate school.

### PPIA Admission Requirements

The Department of Accounting's (the department) admission criteria for its PPIA program have been developed to conform to State of Texas requirements and are based on the general admission requirements of the Graduate School. Applicants are encouraged to include a resume that highlights professional and personal accomplishments with their application.

All applications for admission to the PPIA program are reviewed individually. Admission decisions are based on factors associated with academic success in graduate study and may include any of the following criteria: (1) undergraduate grade point average, (2) performance in accounting classes at UTA, (3) GMAT scores, (4) professional work experience, (5) personal accomplishments, (6) letters of reference, and (7) the applicant's personal statement. Standardized test scores are not used as the sole criterion for admitting applicants or denying admission to applicants.

### Admission Criteria

The Department has two alternative sets of conditions that allow applicants to be unconditionally admitted to the PPIA program without review by the Departmental Admission and Petition Committee. The Departmental Graduate Advisor reviews all applications and determines if they qualify for admission under one of these two sets of criteria. Applicants who do not satisfy any of the following sets of conditions for unconditional admission are referred to the Departmental Admission and Petition Committee for consideration.

#### **Option #1: Unconditional Admission without Committee Review**

Individuals who meet **each** of the following **eight** conditions are given unconditional admission:

- Overall undergraduate GPA is at least 3.0;
- UTA undergraduate GPA is at least 3.0;
- UTA accounting GPA is at least 3.0;
- Have completed at least 9 semester hours of accounting study (beyond principles) at UTA;
- Have completed at least 45 semester hours of coursework at UTA;
- GMAT total score is at least 500;
- GMAT verbal score at the 30th percentile or higher; and
- GMAT quantitative score at the 30th percentile or higher.

#### **Option #2: Unconditional Admission with GMAT Waiver**



This unconditional admission option #2 focuses on the applicant's performance in UTA's undergraduate accounting program. Individuals who meet **all** of the following **six** conditions are given unconditional admission.

- Majoring in accounting at UTA;
- Have completed at least 9 semester hours of accounting study (beyond principles) at UTA;
- Overall undergraduate GPA is at least 3.25;
- UTA accounting GPA is at least 3.25;
- Have completed a minimum of 60 semester hours at UTA;
- Have a GPA of at least 3.25 for the most recent 60 semester hours of courses completed at UTA.

#### **Admission with Committee Review**

PPIA applicants who require Committee review are considered for admission using the following factors, with no single factor used as the primary criterion for making admission decisions.

- Undergraduate GPA (overall, UTA undergraduate) and performance in accounting courses at UTA;
- Score on the GMAT (including separate scores on the verbal and quantitative sections);
- Applicant's professional work experience and personal accomplishments;
- Letters of reference and personal statement provided by the applicant.

Unconditional admission is granted to applicants whose documentation clearly demonstrates a readiness for graduate study. By considering the totality of the applicant's circumstances, including the factors listed above, the Admission and Petition Committee will evaluate an applicant's readiness to successfully complete one of the Department's graduate programs. To qualify for unconditional admission with committee review, applicants are expected to show significant strength in at least three of the four areas listed above. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisional status lasts through the initial semester of admission. Applicants whose documentation does not satisfactorily demonstrate readiness for graduate study may be denied admission. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. The decision of the Committee is final.

### **Master of Science in Accounting**

This program is designed for students who have an undergraduate degree in accounting or a degree in business administration with a major in accounting who wish to specialize in an area of accounting other than tax. The student, with the assistance and consent of the Graduate Advisor, will develop a course of study designed to meet his or her educational needs in light of previous academic work and career objectives.

The M.S. in Accounting requires the student to complete a minimum of 36 semester hours of coursework, 24 of which must be in the accounting discipline.

If students have not satisfactorily completed all of their pre-enrollment competency requirements, they will, in addition to their program of work, also be required to complete those pre-enrollment competency courses. A grade of A or B is required for each pre-enrollment competency course. If college courses in these areas have not been completed with a grade of A or B, students must include these courses in their program of work. If needed, these courses may be completed at the undergraduate or graduate level.

#### **M.S. in Accounting Tracks**

Students can select various specialization tracks in an accounting-related discipline such as external reporting, audit/systems or managerial. Students may also choose to direct their 12 hours of business electives toward a specialized track such as finance, economics, information systems, management or marketing. Recommended course sequences for both the accounting and external

tracks can be obtained by consulting the "Advising" section of the departmental Web site at [web.uta.edu/accounting](http://web.uta.edu/accounting).

## Master of Professional Accounting (MPA)

The MPA program is designed for individuals who hold an undergraduate degree in any major other than accounting (economics, engineering, finance, liberal arts, management, mathematics, science, etc.) . The MPA program requires the student to complete a minimum of 42 semester hours of coursework. If the student has not satisfactorily completed all of their pre-enrollment competency requirements, they will, in addition to their program of work, also be required to complete those pre-enrollment competency courses. A grade of A or B is required for each pre-enrollment competency course. If college courses in these areas have not been completed with a grade of A or B, students must include these courses in their program of work. If needed, these courses may be completed at the undergraduate or graduate level.

For those individuals who hold an undergraduate business degree, the MPA will normally require 42 hours of coursework. For those individuals who hold an undergraduate degree in a non-business discipline, the MPA will normally require 45 hours of coursework for those with a science or engineering undergraduate degree and 51 hours for most other non-business undergraduate degrees. Regardless of undergraduate background, the MPA degree requires a total of 27 hours of accounting plus 6 hours of accounting principles as a pre-enrollment requirement. Thus, MPA graduates will have a total of 33 hours of accounting.

## Master of Science in Taxation

The Master of Science in Taxation (MST) is designed for students who have an undergraduate degree in accounting or a degree in business administration with a major in accounting who wish to specialize in taxation. The student, with the assistance and consent of the Graduate Advisor, will develop a course of study designed to meet his or her educational needs in light of previous academic work and career objectives.

The degree requires a minimum of 36 semester hours, of which 27 semester hours must be accounting. Of the required accounting semester hours, 15 of those semester hours must be in the area of taxation beyond ACCT 5314.

If the student has not satisfactorily completed all of their pre-enrollment competency requirements, they will, in addition to their program of work, also be required to complete those pre-enrollment competency courses as part of their program of work. A grade of A or B is required for each pre-enrollment competency course. If college courses in these areas have not been completed with a grade of A or B, students must include these courses in their program of work. If needed, these courses may be completed at the undergraduate or graduate level.

## Certificate in Taxation

To support The University of Texas at Arlington's mission to provide lifelong learning opportunities to the community, the Department of Accounting offers qualified applicants an opportunity to participate in a Graduate Certificate in Taxation. The program offers graduate courses in specific areas of taxation as a means of

- maintaining and promoting their professional development in an interactive environment;
- acquiring continuing education hours necessary to maintain a professional certification;
- furthering their opportunity to participate in a graduate degree program. Subject to the applicable degree requirements, up to 4 courses taken in the certificate program can be applied toward a master's degree;
- providing quality cost-efficient staff training;
- interacting with other professionals and developing a dialogue that can improve your practice's efficiency and effectiveness. A number of our professors in the program are either currently with the Internal Revenue Service or in practice in the area of specialization associated with the course.



## Admission Requirements

This certification program is a post-baccalaureate educational opportunity available to degreed professionals. It is narrower in scope and shorter in duration than any of the department's graduate degree programs. To qualify, an applicant must

- have an undergraduate degree;
- have a grade point average of 3.0;
- follow the admission procedures required for a special student.

A GMAT score and letters of recommendation are not required for admission to the program.

## Information About Your Status as a Special Student

Special student status characteristics:

- Good for only one semester
- Must be approved by the Dean of Graduate Studies
- No more than twelve (12) hours of work earned as a special student may be applied to a graduate degree at UT Arlington.

A person who is admitted as a special student and later seeks admission to a degree program must submit a regular Graduate School Application for Admission form, pay the application fee, submit all required documents, and meet all admission requirements, including admission tests and any additional requirements established by the degree program.

## Application to a Graduate Program

Admission as a special student in no way guarantees subsequent unconditional admission into a graduate program or the Graduate School. Anyone who enters the Certification Program and later seeks a graduate degree at the College of Business Administration may apply 12 hours of coursework toward that degree program if done within 6 years of completion of the certificate by petitioning the Graduate School through her/his prospective academic department. Only grades of A and B may be so applied toward graduate credit.

## Terms of Admission

Once admitted, participants may take up to four (4) of the approved courses. The terms of admission allow participants to take only the specific courses approved for the program. Participants would not be allowed to take courses outside of their program without applying for and having been accepted into the graduate program.

## Current Graduate Students

Graduate students currently enrolled in a UT Arlington graduate program may also earn the certificate by notifying the Chair of the Department of Accounting of their intent to participate in the certification program and by successfully completing the prescribed number of classes.

## Available Courses

The Certificate in Taxation requires students to take and successfully complete, with a minimum GPA of 3.0, four advanced tax courses. Those students entering the Certificate Program without having taken the equivalent of the undergraduate tax course will also be required to take a "foundation" course, ACCT 5314. The four advanced tax courses are limited to ACCT 5339 and three additional courses selected from the following: ACCT 5341, ACCT 5342, ACCT 5345, ACCT 5346 and ACCT 5347

Courses appropriate for the Certificate Program have been selected because their subject matters directly relate to materials needed by professionals engaged in tax-related activities. Full course descriptions for these advanced courses are included in The University of Texas at Arlington's Graduate Catalog.

### **Grade Point Average While in the Certificate Program**

All participants in the program must meet the normal GPA requirements of the Graduate School, College and Department of Accounting. In particular, they must maintain an overall GPA of 3.0 in order to receive the Certificate.

## **ACCT Courses**

### **ACCT5133 – PROFESSIONALISM IN ACCOUNTING**

1 Lecture Hour · 0 Lab Hours

Topics to engender a stronger sense of professionalism: business and social etiquette, self-assessment, professional deportment, networking, effective communication skills, and dressing professionally. Topics primarily presented by accomplished professionals from public accounting, industry, and government. Prerequisite: ACCT 5311 with a grade of C or higher or acceptance in the PPIA .

### **ACCT5199 – GRADUATE ACCOUNTING INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Practical training in accounting. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ACCT5299 – GRADUATE ACCOUNTING INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Practical training in accounting. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ACCT5301 – ACCOUNTING ANALYSIS I**

3 Lecture Hours · 0 Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of financial accounting.

### **ACCT5302 – ACCOUNTING ANALYSIS II**

3 Lecture Hours · 0 Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of managerial accounting. Prerequisite: ACCT 5301 with a grade of C or higher.

### **ACCT5311 – FINANCIAL ACCOUNTING I**

3 Lecture Hours · 0 Lab Hours

Examination of financial accounting process, problems encountered in preparation of financial statements, and concepts and principles used to resolve these problems. Prerequisite: ACCT 5301 with a grade of C or higher.

### **ACCT5312 – FINANCIAL ACCOUNTING II**

3 Lecture Hours · 0 Lab Hours

Study of additional problems encountered in preparation of financial statements. Prerequisite: ACCT 5311 with a grade of C or higher.

### **ACCT5313 – SOFTWARE TOOLS**

3 Lecture Hours · 0 Lab Hours

An in-depth study of software that would likely be used by accountants and other business people. May

include spreadsheet, database, and accounting software, tax software, and other types of tools such as XBRL and XML. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5314 – PRINCIPLES OF FEDERAL INCOME TAX**

**3** Lecture Hours · **0** Lab Hours

A study of general federal income tax principles such as income, deductions, losses and property transactions. The principles of individual taxation will be covered as well as an overview of tax considerations for entities such as corporations and partnerships. Prerequisite: ACCT 5301 with a grade of C or higher.

### **ACCT5315 – ACCOUNTING SYSTEMS ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of business information processes. Includes coverage of control concepts, audit trails, and the uses of information technology. Emphasis on the role of accounting in collecting, storing, and communicating information for management planning and control. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5316 – AUDITING CONCEPTS AND PRACTICES**

**3** Lecture Hours · **0** Lab Hours

Concentrates on practice of professional accounting and auditing. Emphasizes decision making in a variety of unstructured situations where decisions demand a grasp of purpose, method, and judgment for their resolution. May not be taken for credit by students who have received credit for a course in auditing. Prerequisite: ACCT 5312 and 5315 with grades of C or higher.

### **ACCT5317 – COST ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

Uses and classification of costs incurred in manufacturing. Emphasis on concepts involved in assignment and reporting of costs under job order, process, standard and direct costing systems. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5318 – STUDIES IN AUDITING**

**3** Lecture Hours · **0** Lab Hours

A critical analysis of advanced topics in both auditing theory and professional practice. Emphasis on: development of auditing theory, generally accepted auditing standards, professional responsibilities, auditing EDP, SEC practice and reporting, cases in audit decision making, and analyses of emerging issues and contemporary problems in auditing. Prerequisite: ACCT 5316 with a grade of C or higher.

### **ACCT5319 – FINANCIAL ACCOUNTING III**

**3** Lecture Hours · **0** Lab Hours

Accounting for business combinations, preparation of consolidated financial statements, multinational operations, partnerships, and estates and trusts. Prerequisite: ACCT 5312 with a grade of C or higher.

### **ACCT5320 – GOVERNMENTAL AND NONPROFIT ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

Budgeting, accounting and financial reporting, managerial control, and auditing considerations of governmental and nonprofit entities. Prerequisite: ACCT 5312 with a grade of C or higher.

### **ACCT5321 – RESEARCH IN ACCOUNTING ISSUES**

**3** Lecture Hours · **0** Lab Hours

Designed to improve student's ability to research complex areas in accounting and to sharpen understanding and application of accounting concepts and principles. Case studies and problems considered and analyzed. Prerequisite: Excel certification and ACCT 5312 with a grade of C or better.

## **ACCT5322 – ACCOUNTING FOR MANAGEMENT PLANNING AND CONTROL**

**3** Lecture Hours · **0** Lab Hours

Concentrates on information needs of management for planning and control of operations. Topics include setting corporate objectives, behavioral problems, capital budgeting and profit-planning, the use of quantitative tools, divisional performance evaluation, and transfer pricing. May not be taken for credit by students who previously received credit for ACCT 4302 or equivalent. Prerequisite: ACCT 5302 with a grade of C or higher.

## **ACCT5324 – FINANCIAL STATEMENT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A study of the basic financial statements and their use by managers, investors, and creditors. Prerequisite: ACCT 5302 with a grade of C or higher.

## **ACCT5327 – CONTEMPORARY ISSUES IN ACCOUNTING THEORY**

**3** Lecture Hours · **0** Lab Hours

Designed to familiarize students with significant problems currently facing the accounting profession, to examine in depth various solutions proposed by accounting scholars and others, and to strengthen student understanding of today's critical issues in accounting theory. Prerequisite: ACCT 5312 with a grade of C or higher.

## **ACCT5329 – CONTEMPORARY ISSUES IN ACCOUNTING INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

An exploration of current topics critical to accounting information systems. The course is designed to enhance student understanding of emerging issues and technologies related to reporting, internal controls, system security and effectiveness. Topics may change semester to semester. Prerequisite: ACCT 5315 with a grade of C or higher.

## **ACCT5330 – INTERNATIONAL ACCOUNTING AND FINANCIAL REPORTING**

**3** Lecture Hours · **0** Lab Hours

Financial accounting and reporting principles and practices in various countries, the role of accounting in economic development, as well as the accounting considerations in international business operations -- e.g. foreign currency translation, auditing, accounting systems, taxation, and sensitive payments. Prerequisite: ACCT 5302 with a grade of C or higher.

## **ACCT5332 – OPERATIONAL AUDITING**

**3** Lecture Hours · **0** Lab Hours

A study of operational audit methodology for management audits. Audits of administrative and support functions, and other special areas such as fraud audits. Prerequisite: Graduate standing and six hours of accounting with grades of C or higher.

## **ACCT5335 – DESIGN OF ACCOUNTING SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

A detailed study of the data entry, storage (file design), internal control, and reporting requirements of accounting systems, followed by the development of a significant accounting subsystem using a software development tool. Prerequisite: ACCT 5315 with a grade of C or higher.

## **ACCT5339 – TAX PLANNING AND RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A study of the use of various techniques and procedures available in evaluating issues arising under federal income tax law. Emphasizes research into individual and business tax problems and planning alternatives. Prerequisite: ACCT 5314 with a grade of C or higher.

## **ACCT5340 – STUDY OF FEDERAL INCOME TAX FOR ENTITIES OTHER THAN INDIVIDUALS**

**3** Lecture Hours · **0** Lab Hours

Comprehensive analysis of the federal income tax consequences applicable to entities other than individuals. Analysis of the relevant tax principles of corporations, partnerships, trusts and estates will be undertaken. Cannot be taken for credit within the 36-hour program requirements for Master of Science in Taxation program. Prerequisite: ACCT 5314 with a grade of C or higher.

## **ACCT5341 – TAXATION OF PASSTHROUGH ENTITIES**

**3** Lecture Hours · **0** Lab Hours

Analysis of the federal income tax rules governing passthrough entities. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher. Credit will not be received for both ACCT 5340 and ACCT 5341.

## **ACCT5342 – TAX PROBLEMS OF CORPORATIONS AND SHAREHOLDERS**

**3** Lecture Hours · **0** Lab Hours

Analysis of the federal income tax rules governing corporations and shareholders. Subjects include corporate formations, corporate capital structure, administrative requirements affecting corporations, the corporate alternative minimum tax, special tax provisions (such as the personal holding company and accumulated earnings taxes and the collapsible corporation rules), nonliquidating distributions, stock dividends, redemptions and partial liquidations, liquidating distributions, corporate reorganizations, and Subchapter S corporations. Prerequisite: ACCT 5314 and 5339 with grades of C or higher. Credit will not be received for both ACCT 5340 and ACCT 5342.

## **ACCT5343 – TAX PROBLEMS OF TRANSACTIONS IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Problems and elections relating to the acquisition, holding, and disposition of real property. Subjects include means of acquisition and disposition, capital gains and losses, deferred payment sales, organization of syndicates, sale and leaseback, dissolutions, and general tax-saving methods. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher.

## **ACCT5345 – STATE AND LOCAL TAXATION**

**3** Lecture Hours · **0** Lab Hours

Introduction to the principles and practices of state and local taxation. Topics considered in the course include the application of both inter- and intra- state taxation, allocation and apportionment principles and issues in relation to the predominant forms of state taxes, such as franchise, sales, use, income, ad valorem, and property tax. Prerequisite: ACCT 5314 and 5339 with grades of C or higher.

## **ACCT5346 – TAX PRACTICE AND PROCEDURE**

**3** Lecture Hours · **0** Lab Hours

This course overviews the procedural aspects of dealing with the Internal Revenue Service. The focus is from the private practitioner's perspective in assisting clients in navigating the Service's administrative requirements. Topics include administrative organization of the Service, tax audits, the use of Service administrative summonses, statutes of limitation, penalties, interest charges, civil and criminal procedures and appeals. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher.

## **ACCT5347 – FEDERAL TAXATION OF GIFTS AND ESTATES**

**3** Lecture Hours · **0** Lab Hours

A comprehensive survey of the principles and procedures involved in determining the federal estate tax and the supplementary federal gift tax including taxability and valuation of property and the determination of deductions and credits. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher.

## **ACCT5352 – INFORMATION SYSTEMS AUDIT AND CONTROL**

**3** Lecture Hours · **0** Lab Hours

A study of modern approaches to the audit and control of business information systems. Prerequisite:

ACCT 5315 and 5316 with grades of C or higher.

### **ACCT5353 – STATISTICAL TECHNIQUES USED IN ACCOUNTING**

3 Lecture Hours · 0 Lab Hours

A study of statistical techniques used in accounting. Topics include alternative sample selection methods, attribute methods, mean-per-unit estimation, ratio and difference estimation, monetary unit sampling, and regression analysis. Prerequisite: STAT 5301 with a grade of C or higher.

### **ACCT5366 – FRAUD EXAMINATION**

3 Lecture Hours · 0 Lab Hours

Analysis of fraud examiner and auditor responsibilities and current methodologies with respect to financial fraud investigation, detection, and prevention. Management's responsibilities for fraud deterrence and implementation of effective prevention measures. Identification, analysis, and examination of financial fraud using actual case studies. Prerequisite: ACCT 5316 with a grade of C or higher.

### **ACCT5380 – ETHICS IN ACCOUNTING**

3 Lecture Hours · 0 Lab Hours

This course is intended to introduce students to ethical reasoning, integrity, objectivity, independence, professionalism and other core values. The course incorporates the essentials of professional responsibilities, including elements of trust and communications with clients and other professionals. Both ethical principles and rules are considered. This course is intended to satisfy conditions of the Texas State Board of Public Accountancy that require candidates for the CPA Exam to have completed an approved ethics course. Prerequisite: ACCT 5312 or equivalent.

### **ACCT5382 – INDEPENDENT STUDIES IN ACCOUNTING**

3 Lecture Hours · 0 Lab Hours

Extensive analysis of an accounting topic. Prerequisite: Consent of faculty member and department chair.

### **ACCT5392 – SELECTED TOPICS IN ACCOUNTING**

3 Lecture Hours · 0 Lab Hours

In-depth study of selected topics in accounting. May be repeated when topics vary. Prerequisite: consent of instructor.

### **ACCT5398 – THESIS**

3 Lecture Hours · 0 Lab Hours

Thesis. Graded F, R. Prerequisite: permission of Accounting Graduate Advisor.

### **ACCT5399 – GRADUATE ACCOUNTING INTERNSHIP**

3 Lecture Hours · 0 Lab Hours

Practical training in accounting. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ACCT5698 – THESIS**

6 Lecture Hours · 0 Lab Hours

Thesis. Graded F, R. Prerequisite: permission of Accounting Graduate Advisor.

### **ACCT6101 – ACCOUNTING RESEARCH COLLOQUIUM**

1 Lecture Hour · 0 Lab Hours

A forum in which visiting scholars and U.T. Arlington faculty members present and discuss results of their contemporary research. Doctoral students participate by meeting with visiting scholars, reading the

research papers, providing written critiques, and discussing the papers. Doctoral students are required to enroll and attend the colloquia presentations each fall and spring semester until the students pass all their comprehensive examinations. May be repeated for credit. Prerequisite: consent of College PhD advisor.

### **ACCT6309 – SEMINAR IN ACCOUNTING RESEARCH I**

**3** Lecture Hours · **0** Lab Hours

Analysis of the theoretical and empirical literature in accounting. Prerequisite: consent of College PhD advisor.

### **ACCT6310 – SEMINAR IN ACCOUNTING RESEARCH II**

**3** Lecture Hours · **0** Lab Hours

Continuation of analysis of the theoretical and empirical literature in accounting. Prerequisite: ACCT 6309 with a grade of C or higher and consent of the College Ph.D. advisor.

### **ACCT6311 – SEMINAR IN ACCOUNTING RESEARCH III**

**3** Lecture Hours · **0** Lab Hours

Continuation of analysis of the theoretical and empirical literature in accounting. Prerequisite: ACCT 6310 with a grade of C or higher and consent of the College Ph.D. advisor.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Business Administration

College of Business

Web [www2.uta.edu/gradbiz/](http://www2.uta.edu/gradbiz/)

Email [question@uta.edu](mailto:question@uta.edu)

Phone 817.272.3004

Fax 817.272.5799

**107 Business Building**

---

### Degrees / Certificates

#### Master's Degrees

Business Administration, M.B.A. (Flexible Format)

Business Administration, M.B.A. (Professional Cohort)

Business Administration, M.B.A. Non Thesis Fast Track

Business Administration, M.B.A. Thesis Fast Track

Executive M.B.A.

Online Business Administration (Online M.B.A.)

#### Doctoral Degrees

Business Administration, Ph.D.

#### Certificates

Entrepreneur Certificate

Graduate Advanced Studies Business Certificate

---

### Graduate Faculty

#### Assistant Dean

**David Mack**

#### Coordinator of International Programs

**Pui-Ying Chin**

#### Director

**Melanie McGee**

#### EMBA Executive Director

**James Ellis**

#### Associate Professor

**Edmund Prater**

---

### Graduate Advisors

#### Gregory Frazier

*Business Administration, Ph.D.*



**Linda Goggans**

*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**David Mack**

*Executive M.B.A.*

**Rebecca Neilson**

*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**Edmund Prater**

*Business Administration, Ph.D.*

**Chandra Subramaniam**

*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Executive M.B.A.*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

---

**Department Information**

**Courses**

## Department Information

**Master of Business Administration**

- **Objective: Master of Business Administration (MBA) Program**
- **Accreditation**
- **Admissions**
  - **Unconditional Admission**
  - **Probationary Admission**
  - **Provisional Admission**
  - **Deferred and Denied Admission**

**Non-Thesis Degree Requirements**

- **Waivers and Transfer Credit**
- **Deficiency Courses**
- **Core Courses**
- **Advanced Program**
- **Required Advanced Courses**
- **Specialty and Breadth Electives**
- **Selection of Electives (Specialty or Breadth)**

**Thesis Degree Requirements**

- **Grade and Graduation Requirements**
- **Planning a Program of Work**

- **Requirements for Electives**

#### **International Business Option**

#### **Professional Management Electives**

#### **Dual Degree Plan: Bachelor of Science in Biology and Master of Business Administration**

- **Application Procedure**
- **Description**

#### **Professional Cohort format (also referred to as CMBA or PMBA)**

#### **Graduate Certificate Programs**

- **Graduate Advanced Studies Certificate**

#### **Objective: Master of Business Administration Online (MBAO) Program**

#### **Executive MBA Program**

#### **Objective: Ph.D. in Business Administration**

- **Admission**
- **Categories of Admission Decisions**
- **University and College Fellowship/Scholarship Awards**
- **Degree Requirements**

#### **Residence Requirements**

#### **Diagnostic and Annual Performance Evaluations**

#### **Comprehensive Examinations**

#### **Dissertation**

## **Master of Business Administration**

### **Objective: Master of Business Administration (MBA) Program**

The Master of Business Administration program offers enhanced learning experiences that prepare leaders and managers for careers with all types of organizations. The faculty's research commitment and consulting rigor contribute to educational excellence. The community of shared knowledge leads to strategic partnerships that significantly enhance the nature of business education. A variety of MBA degrees and certificates are offered to serve a wide variety of interests.

Graduates from the programs are competent in the leadership of organizations and the cross-functional management of organizational resources. Competence is based on educational experiences that foster creative thinking, awareness of global opportunities, sound analytic decision-making, strategic awareness, excellence in functional disciplines, and the internalized values of effective teamwork and leadership. The dedicated faculty and high quality career services assist each student in achieving their educational and career goals.

### **Accreditation**

The Master of Business Administration program is accredited by the AACSB International, the premier accreditation body for business schools in the U.S.

### **Admissions**

Admission to the MBA program is based upon the completion of the general admission

requirements of the Graduate School. For MBA program admission a score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and record of one's undergraduate academic performance are required. The GMAT is strongly preferred. Students for whom English is not their native language must also submit TOEFL, TOEFL IBt, TSE or IELTS scores. International applicants that score below minimum acceptable levels on the on such examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework.

Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. Applicants with two to five years of experience are preferred.

A standardized test score (GMAT or GRE) will not be used as the sole criterion for determining an applicant's admission to the MBA program. Multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to defer/deny admission is not based on any single criterion.

Specifically, multiple criteria are used to make admission decisions. Quantitative measures include an applicant's GMAT score and grade point average as calculated by the Graduate School. These measures are integrated into a formula, or index, that multiplies the grade point average by 200 and adds the total GMAT score. A graduate grade point average is used in the index when it is 3.0 or above and is based on at least 24 semester hours.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.2 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GPA by 200 and adds the resulting value to the GMAT Score. An index score greater than 1080 is typical of a successful candidate. No equivalent index exists for GRE scores. GRE sub scores (verbal and quantitative) at or above the 40th percentile are typical of a successful candidate.
2. A GMAT score of 500 or greater, with sub scores (verbal and quantitative) in the 30th percentile or greater, is typical of a successful candidate. While the GMAT is strongly preferred, the GRE is acceptable. GRE sub scores (verbal and quantitative) in the 40th percentile or greater, is typical of a successful candidate.
3. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
4. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
5. Educational objectives and quality of written expression of the 200 word application essay.
6. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
7. General and specific program accreditation status of degree-granting institution.
8. Professional work experience.
9. Professional certification or licensure

### **Unconditional Admission**

For unconditional admission, the applicant's composite total from the index is typically 1080 or greater and items 1 through 5 above should strongly indicate potential for successful academic performance as a graduate business student.

Students who are unconditionally admitted, have a minimum undergraduate grade point average

of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as the sole criterion for determining fellowship and/or scholarship eligibility.

### **Probationary Admission**

For an applicant with an index score below 1080 or an applicant who shows deficiency in one or more areas of items 1-9, probationary admission may be available when at least three items of 1 through 5 above strongly indicate potential for successful academic performance as a graduate business student. Items 6 through 9 will also be used to identify positive indicators for admission. Students who are admitted on probation will have one or more conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission upon recommendation of the appropriate Committee on Graduate Studies and approval of the Dean of Graduate Studies. Complete and satisfactory credentials must be received by the Graduate School before the end of the semester in which the student has registered in a provisional status. A student will not be permitted to enroll in the Graduate School with a provisional status for more than one semester. Provisional admission does not guarantee subsequent admission on an unconditional basis.

### **Deferred and Denied Admission**

A deferred decision may be made when an applicant's file is not sufficiently complete to make an admission decision, or when an applicant needs to improve certain criteria to improve their competitive status for future admission consideration.

For an applicant with an index score falling substantially below 1080, and lacking sufficient evidence to indicate potential for academic success as a graduate business student, admission will likely be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

## **Non-Thesis Degree Requirements**

The program is designed to accommodate both full-time and part-time students from widely divergent backgrounds. It is not necessary to have completed prior academic work in business administration. Core courses, which are an integral part of the program, are designed to prepare the student for advanced coursework. In order to accommodate the needs of fully-employed professionals, the College of Business Administration offers a complete program in the evening and on Saturday. Most evening or Saturday classes are taught by full-time faculty members and the same academic standards required of full-time students are maintained. Students are expected to progress through the program at a pace that is commensurate with the time available.

### **Waivers and Transfer Credit**

There are three types of required courses: deficiency, core and advanced. Programs of work will normally vary in length from 36 to 45 hours (plus deficiency courses), depending upon waivers granted. Provided the minimum 36 hour program requirement is maintained, applicants may have both deficiency and core courses waived without the requirement for a substitute course. Such waivers will be approved if they have completed a similar course within the last 10 years, at a recognized college or university, and received a "B" or better grade in that course. Extensions to this 10-year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience. Additionally, a maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by the program advisor. Transfer of graduate courses from other universities will be considered on a case-by-case basis.

## Deficiency Courses

Applicants are encouraged to complete deficiency requirements prior to applying or at the beginning of their studies. College courses in business math (including probability and set theory, linear equations, matrix algebra, compound interest, annuities, and differential and integral calculus), business statistics, and computers (including general topics, spreadsheets and word processing and electronic communications) may be taken prior to entry in the program. Students who are deficient in written and/or oral communication may be required to take ENGL 1301 and/or SPCH 1301 at UT Arlington after enrollment in the program.

## Core Courses

Core courses are often prerequisites for courses taken in the advanced portion of the MBA program. Therefore, core courses should be taken early in the MBA program. The following courses are considered core MBA courses:

- Accounting Analysis I (ACCT 5301)
- Economic Analysis (ECON 5311)
- Operations Management (OPMA 5361)
- Marketing (MARK 5311)
- Finance (FINA 5311)
- Management (MANA 5312)

A prerequisite requirement is considered fulfilled when the student is granted a waiver of that specific core course. Core courses may not be taken as electives in the advanced program.

## Advanced Program

The advanced program provides each student the opportunity to tailor their studies to enhance their desired career opportunities. The careers program outlined below provides excellent support and advice to help the student choose an area of specialty and to select those electives that will build requisite career skills. Available specialties include accounting, economics, finance, information systems, international business, management, operations management, and marketing.

## Required Advanced Courses

Requirements for the advanced program include the following:

- STAT 5325 Advanced Statistical Methods
- BLAW 5330 or MANA 5337 Legal Environment of Business or Ethics and the Business Environment
- ECON 5313 Managerial Economics\*
- ACCT 5302 Managerial Accounting\*
- MANA 5336 Strategic Management (Capstone course - taken in last semester of program)

\* If relevant academic background is extensive enough in this subject area, the program advisor may allow course substitutions which will correspondingly expand the number of electives in the advanced portion of the program.

## Specialty and Breadth Electives

Students may take between nine and fifteen hours in a particular functional area and declare a specialty in that area. However, the advanced portion of the program must have a minimum of five courses (15 semester hours) outside the area of specialty which may be satisfied by the required advanced courses. Courses taken outside the area of specialty are considered breadth electives.

## Selection of Electives (Specialty or Breadth)

Students may wish to tailor their program of work to develop business skills and perspectives essential to their career goals and objectives (see Planning a Program of Work). Subject to the

approval of the program advisor, some breadth electives may be taken outside the College of Business, when the student has an academic background in that area, or the electives are appropriate to the student's career goals and objectives.

A specialty in accounting requires a minimum of 12 semester hours beyond ACCT 5301 and ACCT 5302. Any four advanced accounting courses may be taken; however, it is recommended that the four courses be selected from the list below:

1. ACCT 5322 Accounting for Management Planning and Control
2. ACCT 5324 Financial Statement Analysis
3. ACCT 5330 International Accounting and Financial Reporting
4. Select one of the following:
  - ACCT 5314 Principles of Federal Income Tax
  - ACCT 5315 Accounting Systems Analysis
  - ACCT 5317 Cost Accounting
  - ACCT 5332 Operational Auditing

## Thesis Degree Requirements

Requirements for the MBA thesis degree are the same as those for a non-thesis program with the following change. A six-hour thesis must be added to the normal 36-hour advanced MBA program. All candidates for this type degree shall defend the thesis at a final oral examination.

## Grade and Graduation Requirements

The MBA program follows the grade requirements for probation as specified under the general regulations of the Graduate School. In addition, students must have at least a 3.0 grade point average in all coursework and area of specialty (concentration) to graduate.

Students may be dismissed from the MBA program if they accumulate grade deficiency points greater than allowed. Any grade of C is worth one deficiency point, any grade of D is worth two deficiency points, and any grade of F is worth three deficiency points. Deficiency points will not be removed or replaced from a student's official graduate record by additional coursework.

The maximum allowable deficiency points will be computed by the program advisor when the degree plan is prepared, modified or reviewed using the following guidelines:

Program Length (excluding transfer credit)	Allowable Deficiency Points
12 courses	2
13-17 courses	3
18 courses or more	4

## Planning a Program of Work

All students are encouraged to plan an advanced program of work early in their studies. The planning process begins with a New Student Orientation, which is scheduled and conducted by Graduate Business Services in the College of Business. This mandatory Orientation will be the student's initial advising session and will provide important reference materials to assist them in preparing a preliminary advanced program of work. This session will also provide the student an opportunity to meet with a program advisor who will outline the process for finalizing their program of work.

When planning a program of work, students may consider including several opportunities to enhance their career outcomes. Full-time students are encouraged to take advantage of the careers program outlined in the College portion of this catalog. The Careers and Managing in a Changing Environment (MANA 5338) course provides opportunities for students to discover their own talents and abilities, identify appropriate careers, and explore marketplace opportunities. Such



early career positioning allows students to focus their studies on those courses that will provide the most desirable skill sets. Additionally, students may select research topics and case presentations that will develop a strong industry awareness. Study abroad and internship opportunities also expand students' educational experiences on both a curricular and extracurricular basis. These special programs must be approved by the program advisor and included in the student's program of work.

Part-time students who are fully employed are encouraged to explore opportunities available in their organizations. Application of classroom information to the daily challenges faced in any business organization will expand students' education and career preparation. The career class (MANA 5338) will assist working students in seeking "best-fit" opportunities in their organizations.

### Requirements for Electives

Students may take breadth electives in any of the curriculum areas of the MBA program. Students may take up to six semester hours in non-business coursework as part of their breadth electives, subject to the approval of the MBA program advisor.

### International Business Option

The international business option (INBO) attracts students from every continent and provides a comprehensive program of challenging study in international business administration. In this option, students may have a traditional MBA specialty (see above) or may choose a broad program of study with no specialty. Generally a student must complete a minimum of 3-4 courses from the international courses listed below in order to be considered as having elected this option.

Students are encouraged to enrich their international education by participating for graduate credit in established foreign exchange programs in Australia, England, France, Germany, Korea, Mexico, and Norway, or by gaining approval to participate in unique study abroad programs offered by other AACSB accredited schools. Appropriate foreign language proficiency must be demonstrated before attending programs in France, Germany and Mexico or when required by study abroad programs. Students are encouraged to participate for academic credit in international business internships available in the Metroplex or overseas as part of an established exchange or study abroad program.

MBA students may further enhance their international skills by participating in the dual degree program with Thunderbird University. Under this program, students may earn both an MBA (UT Arlington) and the Master of International Management (Thunderbird) degree. This program normally allows students to apply 12 hours of advanced coursework and all core requirements towards both programs. Students wishing to participate may obtain detailed information about the program from the Graduate Business Services Office in the College of Business Administration. Students must independently apply and gain admission to both programs.

Students planning a career in the international field are encouraged to pursue internationally related research topics while taking approved research courses. Research topics may include conducting an area study (Latin American, African, Asian, European, etc.). Students should also recognize the importance of those graduate courses in political science and history, or additional courses in undergraduate foreign languages, which would embellish their graduate studies.

ACCT 5330 International Accounting and Financial Reporting  
 ACCT 5348 International Tax  
 BLAW 5331 Law of International Business  
 ECON 5319 Economic Analysis of International Business  
 ECON 5321 International Trade and The Global Marketplace  
 ECON 5327 International Finance and Open Economy Macroeconomics  
 FINA 5331 Multinational Financial Management  
 FINA 5332 Seminar in International Financial Markets  
 MANA 5331 Management of International Operations  
 MARK 5331 International Marketing

## Professional Management Electives

Students holding bachelor's or master's degrees in professional fields such as architecture, education, engineering, nursing, social work, and urban studies have the option of taking, with program advisor approval, up to 12 hours of approved breadth electives in their professional area as part of their MBA degree requirements. With these electives, professionals can develop advanced management skill in a functional area by declaring a 9-12 hour specialty, or pursue a more general management approach by declaring "no specialty."

## Dual Degree Plan: Bachelor of Science in Biology and Master of Business Administration

A five-year program designed to prepare students for careers as managers with specific knowledge of the biomedical science field. Students are required to take courses from life sciences, business, and liberal arts, culminating in a dual Master of Business Administration Degree (MBA), including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Business and the College of Science. The BS in Biology will be conferred at the same time as the MBA. If students in this joint degree program are not accepted into the MBA program, or if students enter the MBA program and fail to complete the requirements for the MBA, then, in order to earn a BS in Biology they must take the same, full complement of courses required for a BS as students not enrolled in the joint program.

### Application Procedure

Students interested in this integrated undergraduate and graduate degree plan should consult with the Biology undergraduate advisor. If eligible for the program, the Biology undergraduate advisor will direct them to contact Graduate Business Services. Application procedures will be discussed at that stage.

### Description

This degree program is designed to provide students with a strong background in the life sciences and with a contemporary education in business administration that will impart the necessary knowledge and skills to enable them to perform effectively in many career fields. The program includes course work in the basic sciences as well as accounting, economics, finance, marketing, and management. Additionally, students are required to take general education courses in literature, fine arts, history, political science, and social science.

## Professional Cohort format (also referred to as CMBA or PMBA)

The professional cohort format of the MBA program is designed to provide high quality graduate business studies for working professionals who desire to continue their full-time employment. In this specially-designed, team-based (cohort) format, MBA courses are taken in sequence, in accelerated 5- or 8-week sessions, within each academic semester. This customized, sequential course delivery allows the team to complete their MBA degree in only 24 months.

This program is 45 semester hours for all students and is a traditional Master of Business Administration (MBA); therefore, the program includes the same general curriculum requirements as the MBA program detailed above.

## Graduate Certificate Programs

### Graduate Advanced Studies Certificate

Individuals who hold a graduate degree in business and wish to pursue additional graduate studies in business solely for the purpose of professional development may apply to the Master of



Business Administration Program as a special student. Applicants should outline their professional development objectives in their written essay that accompanies their application. Additionally, they must meet all requirements for admission to the MBA program. Coursework in this program must meet the grade requirements of the Graduate School and be completed within a three year time-limit. A certificate will be granted upon successful completion of 12-21 hours of approved coursework in an area of business. Executives completing courses from two or more areas will be awarded a certificate in the area of executive development. Managers or functional specialists completing courses in one area of study will be awarded a certificate for their professional development area. Some courses taken under this program may not be applied in the future toward another graduate degree at this University.

## **Objective: Master of Business Administration Online (MBAO) Program**

**PLEASE NOTE: At this time, admissions to our Online MBA have been suspended for future semesters**, as UT Arlington is transitioning out of the UT Online MBA Consortium. While other UT System universities have developed, or are in the process of developing, their own online MBA programs, UT Arlington does not plan to offer a full online MBA program in the near future. Please feel free to visit our website for future updates/developments.

The MBA Online program in General Management provides today's students with the tools necessary to become leaders in the workplace of tomorrow. This challenging degree program pools the impressive resources and diverse perspectives of eight accredited University of Texas System institutions. Students will find a highly skilled, statewide team of professors presenting a broad, interactive curriculum. The program may be completed in as few as two or as many as six years.

Students apply for admission at any of the sponsoring institutions and receive their degrees from that university. To apply at The University of Texas at Arlington, students follow the same procedure required for the in-residence MBA (see the previous section titled Admissions). Applicants to the Online MBA program must specify on their application for admission that they are applying to the Online MBA program.

The Online MBA contains 16 courses (48 credit hours) all of which can be accessed entirely from remote locations. The program leads to an MBA with a specialty in General Management.

The program contains the following 16 courses:

- \*Accounting Analysis (UTD)
- \*Economic Analysis (UTD)
- \*Management (UTPA)
- Quantitative Analysis (UTSA)
- \*Marketing Management (UTPB)
- \*Financial Management (UTA)
- Research Methods (UTPA)
- Information Systems for Managers (UTSA)
- Legal Environment in Business (UTB)
- \*Production and Operations Management (UTB)
- Contemporary Topics in Financial Management (UTPB)
- Accounting for Decision Making (UTSA)
- Human Resource Management (UTB)
- Leadership and Change (UTPA)
- Strategic Management (UTA)

\*denotes Core Courses

Note: UTA denotes classes offered by The University of Texas at Arlington; UTB denotes classes offered by The University of Texas at Brownsville; UTD denotes classes offered by The University of Texas at Dallas; UTPA denotes classes offered by The University of Texas at Pan American;

UTPB denotes classes offered by The University of Texas at Permian Basin; and UTSA denotes classes offered by The University of Texas at San Antonio.

Up to four core courses may be waived based upon recent academic coursework and satisfactory grades, for a minimum 36-hour program. Two additional courses may be waived based upon courses taken in residence at The University of Texas at Arlington. A minimum of 8 courses (24 credit hours) must be taken online. Waivers and transfer credit follow the same regulations as the in-residence MBA (see the previous section titled Waivers and Transfer Credit). For more information, visit the UT TeleCampus Web site: [www.telecampus.utsystem.edu](http://www.telecampus.utsystem.edu)

## **Executive MBA Program**

The Executive MBA (EMBA) program is designed to provide high-quality graduate management education to mid-level and upper-level managers and executives. The program covers all functional areas of business management and exhibits several content integrating themes associated with successful management of modern business organizations, including project management, international operations, total quality management, and strategic resource alignment.

A cohort-based design with a lock-step, fixed curriculum and heavy emphasis on case studies are prominent features of the EMBA program. Students, who are usually fully employed, enter the program as a group of 25 to 30 and progress through courses together. The schedule of classes is non-traditional and utilizes weekend and accelerated formats. Course content is delivered by the best faculty, using methods that maximize student interaction and high levels of knowledge transfer to students' job situations.

## **Objective: Ph.D. in Business Administration**

The objective of the Doctor of Philosophy in Business Administration degree is primarily to develop scholars with an ability to teach and conduct independent research in various areas of business administration. The program prepares students for careers as creative teachers and researchers by providing thorough preparation in both the theory and practice of business administration. The curriculum emphasizes and develops the rigorous analytical skills needed to make significant contributions in fields of business. Graduates of the program will assume significant roles in the world's educational and research institutions.

Coursework is offered in the following areas: accounting, banking and finance, business economics, business policy/strategic management, business statistics, personnel/human resource management, insurance and risk management, international business management, investments and securities, labor/industrial relations, management information systems, management sciences, marketing management and research, organizational behavior, organizational theory, production/operations management, real estate, small business management and ownership, and taxation. Coursework in these areas of study supports the following major fields: Accounting, Economics, Finance, Information Systems, Management, Marketing, and Operations Management.

## **Admission**

Admission to the Ph.D. program is based upon the completion of the general admission requirements of the Graduate School. For Ph.D. program admission a score on the Graduate Management Admission Test (GMAT) or Graduate Record Exam (GRE), and a record of undergraduate and master level academic performance are required. Students for whom English is not their native language must achieve a TOEFL score of at least 550. International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete U.T. Arlington's Graduate English Skills Program prior to beginning graduate coursework. Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. A

standardized test score (GMAT or GRE) will not be used as the sole criterion for denying an applicant's admission to the Ph.D. program.

Specifically, multiple criteria are used to make admission decisions. Quantitative measures include an applicant's GMAT or GRE score and grade point averages on undergraduate and master level work as calculated by the Graduate School. No formula is used nor weights assigned to these factors. The Ph.D. Graduate Studies Committee and the field coordinator for the student's track in the Ph.D. program give consideration to these and other factors (educational objectives, letters of recommendation, etc.) in the entire file to arrive at a decision. Interviews with prospective students are encouraged and given consideration in the decision process. There are no set minimum scores for GMAT or GRE required for admission and no cutoff scores on grade point averages. Prospective students are encouraged to work with their track's field coordinator to work through the admission process.

### Categories of Admission Decisions

An applicant is unconditionally admitted when all factors for consideration indicate very strong potential for academic success as a business doctoral student. When multiple factors indicate lack of potential, admission will be denied. Probationary admission is not available for the doctoral program.

A provisional decision to admit may be granted when the applicant meets criteria for unconditional admission but an item of applicant information has not been received by the Graduate School. A deferred decision may be made when an applicant's file is not sufficiently complete to make an admit or deny decision.

### University and College Fellowship/Scholarship Awards

Doctoral students who are newly admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (and 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT or GRE) will not be used as the sole criterion for determining fellowship and/or scholarship eligibility.

### Degree Requirements

All students must complete work in three fields: a major (dissertation) field, a minor field, and a research field. A minor field may be external to the College of Business Administration. Examples are industrial engineering, mathematics, computer science, sociology, and psychology. The student must petition for approval of an external minor field.

The following minimum semester hours must be included in the student's Program of Study.

	Minimum Semester Hours
Business Foundation *	
Major Field	18**
Minor Field	12**
Research Field	15**
Dissertation	18

\* From 0-15 hours depending upon the student's background at the time of admission to the doctoral program.

\*\*Previous equivalent advanced coursework may be accepted.

### Residence Requirements

Each student enrolled in the doctoral program must enroll for and successfully complete a minimum of 15 hours in one 12-month period prior to completion of the comprehensive

examinations. Each student must enroll for at least 12 hours every year. All students enrolled in the program must successfully complete all coursework and comprehensive examinations within a maximum of 60 months from initial enrollment in the program. A minimum of 24 graduate hours in residence, excluding dissertation, are required for all candidates.

## Diagnostic and Annual Performance Evaluations

All doctoral students are expected to show steady progress toward their degree and to demonstrate satisfactory advances in their ability and motivation to conduct independent research throughout their program. During a student's program, a diagnostic evaluation will be conducted near the end of the first year, but no later than 24 credit hours. After the first year, an annual performance evaluation will take place each subsequent year. The evaluation will be conducted by the major area Ph.D. advisor in consultation with a faculty committee. If the student has not yet passed all comprehensive examinations or does not have a formal dissertation committee, the faculty committee will consist of the faculty in the major area. If the student has passed all comprehensive examinations and has a formal dissertation committee, the faculty committee will consist of the Dissertation Committee.

Upon completion of the evaluation, a recommendation of continuation or discontinuation in the program is made to the College of Business Administration Ph.D. program director for a final decision. For a discontinuation decision resulting from the first year diagnostic evaluation, the student will immediately be discontinued in the Ph.D. program. For a discontinuation decision in the annual performance review in the second year and beyond, the student will have one regular semester (Fall or Spring) to demonstrate satisfactory improvement in their performance. At that time the major area Ph.D. advisor in consultation with the appropriate faculty committee, and the Ph.D. program director, will make a final decision on whether the improvements are satisfactory. An unsatisfactory decision at that time will result in the immediate discontinuation of the student in the program.

During the diagnostic and annual performance reviews, reasons for poor performance include: grade point averages below minimum GPA requirements, unsatisfactory progress in completing coursework, unsatisfactory progress in completing dissertation, and inadequate demonstration of ability and motivation to conduct independent research.

## Comprehensive Examinations

Students must demonstrate competence in their major, minor, and research fields by the successful completion of written examinations. Written comprehensive examinations in each field will be given at the start of each fall and spring semester of each year and may be given during the summer term. A student is eligible for a written comprehensive examination when that student has completed (1) the Business Foundation with a GPA of at least 3.25 and (2) prescribed coursework in the field. A research publication option may also satisfy the minor comprehensive examination.

If a student fails a written comprehensive examination and continues in that field, the examination must be retaken within a period of not more than 13 months. If a student fails a second comprehensive examination in a major or research field, that student will not be permitted to continue in the program. If a student twice fails a written comprehensive examination in a minor field, that student will not be permitted to continue in that field.

A student must complete all written examinations within 25 months or retake any examinations which fall outside the 25-month period. When a student successfully completes all the written examinations, that student is scheduled for a comprehensive oral examination which is administered by the student's Supervisory Committee. A student who fails the comprehensive oral examination is given a second oral examination within 12 months of the date of the first examination. If a student fails the second comprehensive oral examination, that student will not be permitted to continue in the program.

Upon successful completion of written and oral comprehensive examinations, the student is

admitted to candidacy.

## Dissertation

The Dissertation Committee consists of a minimum of five members. The chair of the Dissertation Committee must be from the major field. At least one member of the committee must be from the research field and one member of the committee must be from outside the major field. With the approval of the Graduate Dean, one of the five members may be a nationally or internationally recognized non-U.T. Arlington scholar.

Following completion of the comprehensive examinations, students will be required to enroll for at least nine hours of dissertation each regular semester and at least six hours each summer until completion of the dissertation. See Doctoral Requirements for Dissertations at the front of this catalog for exceptions. Students must register for a minimum total of 18 semester hours of dissertation and must be enrolled for a minimum of nine hours of dissertation in the semester in which they defend the dissertation.

The dissertation must be completed within four years of the oral comprehensive examination.

## BSAD Courses

### BSAD6310 – FOUNDATIONS OF SCIENTIFIC INQUIRY

3 Lecture Hours · 0 Lab Hours

The evolution of the modern corporation is briefly addressed. The core topics include the structure of explanation, the structure of scientific laws, theory building, philosophy of science and relativistic/post-relativistic philosophies of science.

### BSAD6311 – EXPERIMENTAL DESIGN

3 Lecture Hours · 0 Lab Hours

In-depth coverage of selected topics in the design of research and analysis of data; topics include philosophy of science, theory of measurement, complex experimental and quasi-experimental designs.

### BSAD6312 – REGRESSION

3 Lecture Hours · 0 Lab Hours

The theoretical and practical aspects of regression analysis. Topics include simple and multiple linear regression, the matrix formulation of regression models, regression diagnostics and remedial measures, collinearity and ridge regression, normal correlation models, and non-linear least squares, time series including ARIMA models are covered. Practical applications of statistical software packages are emphasized.

### BSAD6313 – ANOVA

3 Lecture Hours · 0 Lab Hours

Experimental design and data analysis, especially as related to business and economic research. Topics include completely randomized designs, complete and incomplete blocks, nested designs, estimation and testing of fixed, random and mixed effects, sampling, nonparametric statistics and analysis of variance.

### BSAD6314 – MULTIVARIATE STATISTICS

3 Lecture Hours · 0 Lab Hours

Focuses on methods of analyzing mean and covariance structures. Topics include commonly applied multivariate methods such as multiple analysis of variance, repeated measures, discriminant analysis, profile analysis, canonical correlations and factor analytic methods. The use of matrix algebra and available computer packages will be stressed.

### **BSAD6315 – TIME SERIES**

**3** Lecture Hours · **0** Lab Hours

Univariate and multivariate time series; analysis of economic and financial data; out-of-sample forecasting using computer software. Autoregressive-moving average models, vector autoregression, unit roots, co-integration, ARCH and GARCH.

### **BSAD6316 – FINANCIAL ECONOMETRICS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of the econometric tools and techniques used in empirical finance research. Course emphasizes data extraction and analysis of common finance databases, as well as the theoretical basis for current empirical finance techniques and methods.

### **BSAD6317 – ECONOMETRICS**

**3** Lecture Hours · **0** Lab Hours

Statistical methods applied to business and economic problems; topics include multiple regression, generalized linear regression, systems estimation.

### **BSAD6330 – NONPARAMETRIC STATISTICS**

**3** Lecture Hours · **0** Lab Hours

A survey of statistical tools which may be used when the normal assumptions of parametric statistics cannot be made; including procedures for categorical data, methods involving ranks, bootstrapping, and Kolmogorov-Smirnov type techniques. Cross listed with BSTAT 5330. Prerequisite: BSTAT 5325 or equivalent.

### **BSAD6392 – DOCTORAL RESEARCH AND TEACHING COLLOQUIUM**

**3** Lecture Hours · **0** Lab Hours

Review of the research process and contemporary developments in the methodology and design of empirical research in the major fields of study represented in the doctoral program. Review of teaching methods for effective classroom instruction. May be repeated for credit.

### **BSAD6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

### **BSAD6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

### **BSAD6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

### **BSAD7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not



complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **EMBA Courses**

### **EMBA5192 – SPECIAL TOPICS IN ASIAN BUSINESS**

1 Lecture Hour · 0 Lab Hours

Topic/issue presentations and discussions contained in a seminar which examines state-owned enterprises, foreign-invested firms, and private business organizations in China.

### **EMBA5201 – ASSESSING LEADER STYLE, BEHAVIOR, AND RESULTS**

2 Lecture Hours · 0 Lab Hours

"Strength based leadership" recognizes that there are many different aspects of leadership such as an individual's personality, skills, experience, creativity, personal integrity, initiative, and environment. Using a battery of leadership assessment tests, participants will explore their own strengths (and weaknesses) and the impacts these have on their personal leadership style.

### **EMBA5205 – UNDERSTANDING ETHICAL DIMENSIONS OF BUSINESS**

3 Lecture Hours · 0 Lab Hours

Leaders face many challenges. Not the least of these are the challenges that rapid growth, personal wealth, and stockholder/stakeholder pressures place on executives. This course explores these issues with emphasis on the ethics of managerial decision making, creating ethical environments for employees, establishing expected norms of behavior, and the consequences of unethical behavior.

### **EMBA5206 – BUILDING AN INTELLIGENT AND INNOVATIVE ENTERPRISE**

2 Lecture Hours · 0 Lab Hours

Students investigate an organization's effort to build an intelligent and innovative enterprise, how to deploy strategic information technologies (IT), and how to launch IT-enabled new products and services. Students explore how strategic IT can help the organization to become structurally more competitive and culturally more innovative through the development of knowledge management systems.

### **EMBA5211 – COMPETING IN A GLOBAL ENVIRONMENT**

2 Lecture Hours · 0 Lab Hours

With an ever-growing number of industries becoming global in scope, managers are being increasingly challenged to manage strategies within a global perspective. This course provides participants with the skills, knowledge and sensitivity required to successfully manage organizations and organizational units within a multinational environment.

### **EMBA5302 – MANAGERIAL ECONOMICS IN THE GLOBAL BUSINESS ENVIRONMENT**

2 Lecture Hours · 0 Lab Hours

This module provides a detailed review of world economic development and international managerial economics. Multinational trade, international finance, and country economic development are critically examined using a comparative perspective, including gateways and barriers to entering country markets.

### **EMBA5303 – OPTIMIZING QUALITY AND PROCESS WITH ACCOUNTING INFORMATION**

3 Lecture Hours · 0 Lab Hours

Modern tools for meeting the competing challenges of organizational cost minimization are explored within an environment that demands near-perfect quality standards. Emphasis is on leveraging accounting information for decision making, strategic management, and for the control of processes and organizations.

### **EMBA5304 – MAKING STRATEGIC DECISIONS WITH FINANCIAL DATA**

**3 Lecture Hours · 0 Lab Hours**

Practical analytical skills needed to manage the financial and tangible resources of a firm are presented. Students gain exposure to the fundamentals of asset valuation models, financial forecasting, risk management, capital structure alternatives, cash flow management, reporting and disclosure issues, liability identification, and equity development.

### **EMBA5307 – DESIGNING GLOBAL SUPPLY CHAINS FOR COMPETITIVE ADVANTAGE**

**3 Lecture Hours · 0 Lab Hours**

Students learn how to analyze logistics problems on a functional, business, and companywide basis and gain an understanding of the organizational structures used in logistics, how to select a multinational location site, how to configure global-scale facilities, and ways to develop international sourcing networks.

### **EMBA5308 – CREATING CUSTOMER VALUE**

**3 Lecture Hours · 0 Lab Hours**

This course focuses on strategies and tactics to create customer value and build long term relationships to meet organizational goals. Students are exposed to tools that enable managers to understand the ever-changing marketplace and then build an effective marketing strategy to meet corporate goals. Not all customers are profitable or perhaps desirable. Customer management strategies to build marginal buyers into desired customers are also covered.

### **EMBA5309 – ACCESSING CAPITAL MARKETS FOR GLOBAL OPERATIONS**

**3 Lecture Hours · 0 Lab Hours**

Effective utilization of capital markets, both domestic and foreign, is essential for a thriving firm. Leaders must be able to assess relative benefits and costs of both short-term and long-term sources of expansion capital not only within their home markets but also within the context of global markets. Evaluation of and access to foreign capital markets requires an understanding of characteristics of international financial instruments, the operation and structure of foreign capital markets and fundamentals of measurement and management of foreign exchange exposure.

### **EMBA5310 – DEVELOPING STRATEGIES FOR COMPETITIVE ADVANTAGE**

**3 Lecture Hours · 0 Lab Hours**

This course seeks to broaden students' perspectives of competitive strategy and encourage development and understanding of how firms create and reinforce a competitive advantage in the marketplace. Conceptual tools associated with the understanding of industry and industry dynamics are explained with the assessment of core competencies. Students learn how to evaluate key competitors in the formulation and implementation of "winning" strategies.

### **EMBA5312 – BUILDING HIGH PERFORMANCE TEAMS**

**3 Lecture Hours · 0 Lab Hours**

One of the most difficult challenges that business leaders face is developing talented managers into a high performance executive team. This becomes even more critical in a multinational environment. This module focuses on the strategic management of human resources for building effective teams, retaining high performers, and managing people for gaining competitive advantage.

### **EMBA5413 – EXPERIENCING THE GLOBAL ENVIRONMENT: INTERNATIONAL PROJECT**

**4 Lecture Hours · 0 Lab Hours**

A key factor in determining the ultimate success of a business plan to penetrate a global market is a thorough understanding of the local culture. Immersion in a culture is an excellent way to gain an appreciation of local customs and traditions. Students will create a business plan for a U.S.-based company to enter a foreign market and participate in a ten day to two week study abroad.



The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Economics

College of Business

### Chair Roger Meiners

Web [economics.uta.edu](http://economics.uta.edu)

Phone 817.272.3061

Fax 817.272.3145

**309 Business Building**

---

### Degrees / Certificates

#### Master's Degrees

Economics Data Analytics, M.S.

---

### Graduate Faculty

#### Professor

[William Crowder](#)

[Daniel Himarios](#)

[Roger Meiners](#)

[Michael Ward](#)

#### Associate Professor

[Chi Young Choi](#)

[Aaron Smallwood](#)

[Mahmut Yasar](#)

#### Assistant Professor

[Joshua Price](#)

[Christy Spivey](#)

#### Visiting Assistant Professor

[Shalah Mostashari](#)

#### Clinical Professor

[Jane Himarios](#)

#### Associate Clinical Professor

[Olga Isengildina](#)

[Timothy Wunder](#)

---

### Graduate Advisors

#### [Chandra Subramaniam](#)

*Economics, Non-Degree Seeking*

## Department Information

### Courses

# Department Information

### Objective

#### Admission Requirements

- **Probationary Admission**
- **Deferred and Provisional Admission**
- **Denial of Admission**
- **Fellowships and Scholarships**

#### Degree Requirements

- **M.A. Degree in Economics: Three Options**

### Objective

The Master of Arts is an applied economics program. As a "terminal" degree program, it teaches marketable skills for employment in business or government. The program consists of a solid analytical core in economics and quantitative methods, supplemented with courses in special fields. Potential specialization areas currently emphasized are forecasting/quantitative techniques, international business economics and applied financial economics. The program is also recognized nationally for preparing students who want to pursue the Ph.D. degree in economics.

Economics is one of the areas a student may choose to study in the Doctor of Philosophy in Business Administration program. Additional information concerning the doctoral program is presented in the catalog under the heading Business Administration.

### Admission Requirements

Admission to the M.A. program in economics is based upon the completion of the general admission requirements of the Graduate School. For admission to the M.A. program in economics, a score on either the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) and record of one's academic undergraduate performance are required. Students for whom English is not their native language must achieve a TOEFL score of at least 550 (213 on computer-based test). International applicants who score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework. Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. A standardized test score (GMAT or GRE) will not be used as the sole criterion for admitting applicants or the primary criterion for denying admission to the M.A. program in economics.

Multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to deny admission is not based on any single criterion alone.

1. A bachelor's degree from an accredited general or specific program.
2. An acceptable undergraduate GPA as calculated by the Graduate School (approximately the last 60 hours), generally greater than a 3.0 on a 4.0 scale.

3. An acceptable score on the Graduate Record Examination or GMAT. Successful students generally have a minimum score of 148 (600 old GRE scale) on the Quantitative section and 150 (450 old GRE scale) on the Verbal section of the GRE or a minimum score of 480 on the GMAT.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential success in graduate school.
5. Grades in specified undergraduate business and non-business courses (e.g., math, accounting, economics, statistics).
6. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or an equivalent score on a computer-based test) or a score of 40 on the Test of Spoken English.

### Unconditional Admission

For unconditional admission, the applicant's composite total from the index (this index is derived by using a formula that multiplies the GPA by 200 and adds the resulting value to the GMAT score) must be 1080 or greater and items 1 through 5 above should strongly indicate potential for successful academic performance as a MA Economics student.

For unconditional admission, the applicant can score 148 (600 old GRE scale) or higher on the Quantitative section and 150 (450 old GRE scale) or higher on the Verbal section of the GRE and items 1 through 5 above should strongly indicate potential for successful academic performance as a MA Economics student.

The GRE/GMAT test requirement for admissions to the Economics MA program can, under extraordinary circumstances, be waived at the discretion of the department if the applicant already has been awarded a terminal graduate degree from a regionally or professionally accredited program.

### Probationary Admission

If an applicant does not meet items 1 through 6 for unconditional admission, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

### Deferred and Provisional Admission

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

### Denial of Admission

After a thorough review of the application file, a candidate may be denied admission if he or she has less than satisfactory performance on any two the admission criteria. All applicant data will be carefully reviewed before an admission denial is made.

### Fellowships and Scholarships

Students admitted with no provisional conditions to satisfy are eligible for available scholarship and/or fellowship support. A limited number of merit-based scholarships and fellowships may be awarded to graduate students enrolled in a minimum of 6 hours of coursework in both long semesters.

### Degree Requirements

## M.A. Degree in Economics: Three Options

The Department of Economics provides three Master's tracks: a Thesis Option for those intending to later pursue a Ph.D. in economic, and two Non-Thesis tracks, a traditional flexible option and an applied economics option. The Ph.D. Preparation Option designed primarily for students who intend to pursue a Ph.D. in economics. This program provides excellent preparation for entry into a Ph.D. program. The second option is the flexible non-thesis program enabling a degree candidate to greater flexibility in designing a program to fit one's interest. A third track, also non-thesis, is the Applied Economic Analysis or "number crunching" option designed to prepare graduates to manage and analyze data sets. In this track there is less emphasis on theory and a greater focus on empirical tools.

### M.A. Degree, Thesis: Ph.D. Preparation Option

The Ph.D. Preparation Option in the M.A. degree program is an excellent choice for students intending to obtain a Ph.D. in Economics later at another institution. A minimum of 24 semester hours of coursework, plus a minimum of 6 semester hours of thesis study, are required to obtain the M.A. in Economics, Thesis Option. The core course requirements are ECON 5301 or equivalent, 5310, 5312, 5336, 5339, 5337, 5338, and 5329. These courses would be followed by the thesis hours plus additional relevant courses the candidate wishes to pursue. Students develop a thesis topic in consultation with a faculty member who supervises the thesis with other committee members.

### M.A. Degree, Non-Thesis: Traditional Option

The non-thesis M.A. degree in Economics gives a solid foundation in economic theory and the key elements of econometric analysis but is more flexible than the thesis option. It requires a minimum of 36 semester hours of coursework, including 18 hours required core courses: ECON 5301 or equivalent, 5310, 5312, 5336, 5339, and 5329. The remaining 18 hours include 6 semester hours in economics and 12 semester hours in supporting subjects with the approval of the Graduate Advisor. Successful completion of ECON 5329 satisfies the Graduate School requirement of a final master's examination. This program may be appealing to dual degree candidates as discussed below.

### M.A. Degree, Non-Thesis: Applied Economic Analysis Option

The Applied Economic Analysis option in the M.A. program, which is new for 2010, focuses on a major growth area—data analysis. Hal Varian, Chief Economist at Google, has explained why the demand for data analysis is growing rapidly. Organizations have low-cost computer time, huge quantities of data, and access to software tools that allow data analysis. The problem in using these assets is a shortage of qualified empirical analysts. One must know how to find data, be critical of it, develop it by use of software packages, and explain what has been learned by analysis. Advances in econometrics analysis allow us to better understand key issues, such as pricing and cost, inventory management, population trends, and other issues that impact business and government.

This non-thesis option M.A. in Economics requires 36 semester hours of coursework. The focus is on quantitative analysis with a requirement of 18 hours and will normally be taken in the following sequence so analytical tools can be fully developed: ECON 5336, 5339, 5337, 5338, 5329, and 5341. The last course satisfies the Graduate School requirement of a final master's examination. It is a professional research project that allows the candidate to demonstrate the "number crunching" abilities developed in the program. The resulting work will provide evidence to employers of practical ability to manage and analyze data for a range of private and public organizations. Six semester hours of electives in economics are also required plus 12 semester hours in supporting relevant courses as approved by the Graduate Advisor. This program may be appealing to dual degree candidates as discussed below and candidates with a strong quantitative and computer-based skill orientation.

## ECON Courses

### ECON5182 – INDEPENDENT STUDIES IN ECONOMICS

1 Lecture Hour · 0 Lab Hours

Extensive analysis of an economic topic. Prerequisite: Departmental Permission Required.

### ECON5199 – GRADUATE ECONOMICS INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in economics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### ECON5282 – INDEPENDENT STUDIES IN ECONOMICS

2 Lecture Hours · 0 Lab Hours

Extensive analysis of an economic topic. Prerequisite: Departmental Permission Required.

### ECON5299 – GRADUATE ECONOMICS INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in economics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### ECON5301 – MATHEMATICS FOR ECONOMISTS

3 Lecture Hours · 0 Lab Hours

Course is designed to upgrade mathematical skills for graduate work in economics and business. The emphasis is on calculus and linear algebra and their applications in economic analysis. Mathematical tools covered include optimization, comparative-statics analysis, and simple dynamic analysis. Prerequisite: MATH 1316 or other calculus course.

### ECON5306 – ENVIRONMENTAL ECONOMICS

3 Lecture Hours · 0 Lab Hours

An examination of the development of laws and policies that concern the environment followed by an application of economic analysis for environmental issues such as water use, air pollution, land controls, public lands, and global environmentalism. Other topics include: property rights, theories of regulation, and entrepreneurship. Participants will produce and present a case study on an environmental economic subject of interest. Prerequisite: ECON 5311 or equivalent.

### ECON5310 – MICROECONOMIC THEORY

3 Lecture Hours · 0 Lab Hours

Development of marginal analysis and game theory tools in economics; Focus on the analysis of consumer choice and decision making by firms; Development of competitive model and various deviations from competition including the exercise of market power, externalities, and information asymmetries. Prerequisite: ECON 3310.

### ECON5311 – ECONOMIC ANALYSIS

3 Lecture Hours · 0 Lab Hours

Provides an overview of microeconomic foundations of economic analysis with a focus on business applications. Topics include supply and demand, marginal analysis, pricing issues and theory of the firm. An overview of macroeconomics is also provided, covering monetary and fiscal policy, inflation, growth and international trade. Non-credit for MA in Economics.

### ECON5312 – MACROECONOMIC THEORY

3 Lecture Hours · 0 Lab Hours

Study of the aggregate approach to the economy and the tools of analysis used for the solving of national economic problems. Prerequisite: ECON 3312

### **ECON5313 – MANAGERIAL ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

Application of economic analysis in formulating business decisions based on the theoretical foundations of demand, cost, production, profits, and competition. Macroeconomic topics of particular relevance to managers are included. Prerequisite: ECON 5311 or equivalent.

### **ECON5314 – ECONOMICS OF ORGANIZATION AND BUSINESS STRATEGY**

**3** Lecture Hours · **0** Lab Hours

Microeconomic and game theoretic treatment of firm strategy. Describes and analyzes firm level methods to reduce costs, organize production, manage tasks, acquire suppliers or distributors, set prices, and determine product quality. Course covers the use of horizontal (oligopoly) and vertical (supply chain) restrictions from both firm and social points of view. Prerequisite: ECON 5311 or equivalent.

### **ECON5315 – ECONOMICS OF TECHNOLOGY AND INNOVATION**

**3** Lecture Hours · **0** Lab Hours

Microeconomic examination of technology and innovation. Analyzes the effects of technology on industrial market structure, firms' strategies and public policy. Topics include determinants and effects of innovation, industry evolution, managing firm boundaries, intellectual property, and managing technological processes. A substantial amount of time will focus on dynamic industries including telecommunications, e-commerce, software, entertainment, pharmaceuticals, and biotechnology. Prerequisite: ECON 5311 or equivalent.

### **ECON5318 – ECONOMICS OF SPORTS**

**3** Lecture Hours · **0** Lab Hours

Studies the economic structure of sports, with a focus on business issues. Topics include advertising, fan demand, team output decisions, labor relations, league and conference organization, and government regulation. The course is designed for both general business and economics majors. Prerequisite: ECON 5311 or equivalent.

### **ECON5319 – THE GLOBAL ECONOMY**

**3** Lecture Hours · **0** Lab Hours

This course is a study in the growing global economic integration. Tools are developed to undertake a critical examination of globalization from both the international trade and international finance perspectives. Topics include free trade versus fair trade, government policy harmonization, exchange rate policy, common currency areas, and spillover effects from economic shocks. Particular emphasis is placed on government's role in functioning of the international economic system. Prerequisite: ECON 5311

### **ECON5321 – INTERNATIONAL TRADE AND THE GLOBAL MARKETPLACE**

**3** Lecture Hours · **0** Lab Hours

The course provides an understanding of international trade (movement of goods and services) and investment (cross-border movement of assets) theories. It is designed to understand better the implications of such theories as they relate to international business management. It helps managers deal with the opportunities and challenges created by the global environment. The course uses relevant materials in the form of lectures, case studies, and analysis of a range of international issues confronting international trade and investment. Prerequisite: ECON 5311 or equivalent.

### **ECON5327 – INTERNATIONAL FINANCE AND OPEN ECONOMY MACROECONOMICS**

**3** Lecture Hours · **0** Lab Hours

Study of international money and capital markets. Determination of output, balance-of-payments and exchange rates under different monetary and exchange rate regimes. Exchange rate intervention by central banks and exchange rate systems in developing countries are also discussed. Prerequisite: ECON 5311



**ECON5329 – RESEARCH METHODS IN APPLIED ECONOMICS****3** Lecture Hours · **0** Lab Hours

Each student presents a replication of a published article that uses methods from Econometrics I/II, Forecasting and/or Time Series. The instructor will present replications of several published papers and assist students in choosing studies that they will attempt to replicate. Class meetings will focus on answering specific questions that arise as students carry out their replication exercises. The course concludes with student presentations, along with submission of a written report summarizing the replication effort and detailing the extent to which published results were replicable. The goal is to develop the skills to write quality papers using a variety of statistical techniques. Prerequisite: ECON 5336 or BSAD 6317.

**ECON5330 – HUMAN RESOURCE ECONOMICS****3** Lecture Hours · **0** Lab Hours

This course studies labor supply decisions made by households, labor demand decisions made by firms, and the equilibrium wage differences that result from these decisions. Other topics include unemployment, human capital investments, efficiency wages and other incentive schemes, inequality, labor mobility and migration, and discrimination. Prerequisites: ECON 5311 or equivalent.

**ECON5331 – URBAN ECONOMICS****3** Lecture Hours · **0** Lab Hours

This course examines the market forces that cause people and firms to cluster in urban places and the externalities resulting from this process. The tools of microeconomics are used to analyze urban issues such as poverty, crime, housing, and transportation. Attention is also given to the spatial aspects of local government policy. Prerequisites: ECON 5311 or equivalent.

**ECON5332 – GOVERNMENT, TAXES AND BUSINESS STRATEGY****3** Lecture Hours · **0** Lab Hours

The interaction between government and business is broad. Effective business leadership requires the ability to analyze and respond to public policy. Economics provides a framework for understanding the incentives of consumers, businesses, bureaucrats and civil servants in different policy environments and predicting their behavior in response to policy changes. This course focuses primarily on tax policy at the federal, state and local levels, including issues in corporate taxation, personal income tax, treatment of capital gains and losses, tax incidence, work-leisure choices, fiscal competition among state and local governments, capital flight and fiscal federalism. Prerequisite: ECON 5311

**ECON5333 – ECONOMICS OF HEALTH****3** Lecture Hours · **0** Lab Hours

An economic perspective on a variety of timely health policy issues, including: health expenditures, public and private insurance, incentives, provider education and labor markets, hospitals, prescription drugs, malpractice, externalities, long-term care, the Internet, and various proposals for reform. Prerequisite: ECON 5311 or equivalent.

**ECON5336 – ECONOMETRICS****3** Lecture Hours · **0** Lab Hours

Develops an understanding of statistical and econometric techniques so participants can evaluate claims made by others, come to their own conclusions, and make better judgments about future events. Students learn to use statistical packages such as Excel and Stata to apply these techniques to real data for the formulation of solutions to practical managerial decision making. Topics include descriptive statistics, statistical inference, simple and multiple regression analysis, heteroskedasticity, endogeneity, serial correlation, specification and data issues, functional forms, and basic limited dependent variable models. Prerequisites: BSTAT 5301 or BSTAT 5325.

**ECON5337 – BUSINESS & ECONOMIC FORECASTING****3** Lecture Hours · **0** Lab Hours

Course uses statistical techniques to develop forecasts for economic and financial data. It begins with a description of what a forecast is and the tools necessary to evaluate competing forecasts. Forecasting models are introduced, with emphasis placed on modeling the statistical properties of the economic data



under consideration. As the models become more elaborate, we introduce ARMA models, forecasts based on regression analysis, and multivariate techniques. Students will understand statistical techniques related to modeling economic and financial data over time. One will be able to develop a model to forecast economic or financial data and be able to compare the relative forecasting ability of various models and choose the most appropriate model among alternatives. Students gain familiarity with the programs such as EViews and learn to use such software to develop and analyze forecasts. Prerequisite: ECON 5336 or BSAD 6317.

### **ECON5338 – APPLIED TIME SERIES**

**3** Lecture Hours · **0** Lab Hours

Provides an introduction to univariate and multivariate methods in time series econometrics. A foundation will be given to univariate analysis of stationary and non-stationary time series. Box-Jenkins and forecast methods are discussed. Asymptotic theory and limit theorems for dependent and independent processes will be clarified. The asymptotics of non-stationary processes is presented to demonstrate the distribution theory for time series processes with unit roots. Modeling conditional volatility using GARCH (generalized autoregressive conditional heteroskedasticity) specifications are covered. Tools and concepts for multivariate models are presented including the vector autoregressive model for stationary and non-stationary data, cointegration, impulse response functions, and structural VAR (vector autoregression) modeling. Other topics covered include panel unit root and cointegration testing procedures, HAC (heteroskedasticity-autocorrelation consistent covariance estimators), and nonlinear time series models. Prerequisite: ECON 5336 or BSAD 6317.

### **ECON5339 – ECONOMETRICS II**

**3** Lecture Hours · **0** Lab Hours

This covers cross section, panel data, and limited dependent variables methods. Focus on advanced econometric techniques needed for empirical research by study of underlying theory and the application of techniques on real data sets. Students learn to understand problems that arise from different data. They should obtain the skills to assess the work in the literature, and to improve and apply the techniques to their own research or data analysis. Topics include bootstrapping, panel data methods, instrumental variable estimation, simultaneous equation models, limited dependent variable models and sample selection corrections, propensity score matching methods, quantile regression, and dynamic panel data models. Material covered has many practical applications in various fields. Prerequisites: ECON 5336 or BSAD 6317.

### **ECON5341 – PROFESSIONAL APPLIED ECONOMIC ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A capstone course that completes the analytical tool-kit series that provide the skills needed to originate professional analytical work in business and economics from the point of developing hypotheses, to developing a statistical model, to doing empirical analysis, to writing and presenting the final product. Students will help critique each other's work as it is presented during class meetings where the instructor will also present guidance. The grade is based upon the quality of the paper produced. Prerequisite: ECON 5339.

### **ECON5382 – INDEPENDENT STUDIES IN ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of an economic topic. Prerequisite: Departmental Permission Required.

### **ECON5391 – SPECIAL TOPICS IN ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in economics. May be repeated when topics vary. Prerequisite: Departmental Permission Required.

### **ECON5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Prerequisite: Permission of Graduate Advisor in Economics.

### **ECON5399 – GRADUATE ECONOMICS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in economics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ECON5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: Permission of Graduate Advisor in Economics.

### **ECON5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: Permission of Graduate Advisor in Economics.

### **ECON6310 – ADVANCED MICROECONOMIC THEORY**

**3** Lecture Hours · **0** Lab Hours

Investigates the advanced neoclassical theory of microeconomics. The course develops formal models of consumer behavior, market structure, general equilibrium and welfare. The objective of the course is to acquaint students with the analytical tools necessary to evaluate the formal literature in economics and to conduct scientific, hypothesis-driven statistical studies. Prerequisites: ECON 5301 and ECON 5310.

### **ECON6312 – ADVANCED MACROECONOMIC THEORY**

**3** Lecture Hours · **0** Lab Hours

Topics include dynamic general equilibrium analysis of model economies, monetary theory in overlapping generations models, advanced growth theory and new open-economy macroeconomics. Prerequisites: ECON 5301 and ECON 5312.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Finance and Real Estate

College of Business

### Chair John David Diltz

Web [www.uta.edu/finance/](http://web.uta.edu/finance/)

Phone 817.272.3705

Fax 817.272.2252

**434 Business Building**

---

### Degrees / Certificates

#### Master's Degrees

Quantitative Finance, M.S.

Real Estate, M.S.

#### Doctoral Degrees

Finance (Business Administration), Ph.D.

#### Certificates

Real Estate Development Certificate – [Gainful Employment Disclosure](#)

---

### Graduate Faculty

**John Dowdy**

#### Professor

**John David Diltz**

#### Associate Professor

**Darren Hayunga**

**Sanjiv Sabherwal**

**Salil Sarkar**

#### Assistant Professor

**John Adams**

**Necmettin Gormus**

**Arun Narayanasamy**

#### Assistant Adjunct Professor

**Daniel Lowrance**

#### Professor Emeritus

**Vincent Apilado**

#### Clinical Professor

**Fred Forgey**

#### Lecturer

**Lee Schwemer**

---

## Graduate Advisors

### John David Diltz

*Quantitative Finance, M.S.*

### Fred Forgey

*Real Estate, M.S.*

### Gregory Frazier

*Finance (Business Administration), Ph.D.*

### Salil Sarkar

*Finance (Business Administration), Ph.D.*

### Chandra Subramaniam

*Quantitative Finance, M.S.*

*Quantitative Finance, Non-Degree Seeking*

---

## Department Information

### Courses

# Department Information

## Objective

### Master of Science in Quantitative Finance

- [Accreditation](#)
- [Admission - Master of Science in Quantitative Finance](#)
- [Degree Requirements](#)

### Master of Science in Real Estate

- [Accreditation](#)
- [Admission - Master of Science in Real Estate](#)
- [Degree Requirements](#)
- [Fast Track Programs](#)

### Graduate Certificate in Real Estate Development

- [Objective](#)
- [Admission](#)
- [Course Requirements](#)

## Objective

The Department of Finance and Real Estate participates in several graduate degree programs including the Ph.D. in Business Administration, the Master of Business Administration, the Master of Science in Quantitative Finance and the Master of Science in Real Estate. In the Ph.D. in Business Administration, courses in finance and real estate prepare students for careers in teaching, research, business, and government. Finance is offered in the M.B.A. program as a concentration (see Interdepartmental and Intercampus Programs for degree requirements). The M.S. in Quantitative Finance provides an in-depth exposure to the quantitative aspects of finance. The M.S. in Real Estate provides students in-depth training in real estate decision making.

## Master of Science in Quantitative Finance

The Master of Science in Quantitative Finance degree program is designed to meet the growing demand for financial professionals equipped to implement state-of-the-art analytical techniques in support of financial decision-making. Students complete a rigorous seven-course sequence that includes: finance theory, mathematical finance, financial modeling, economic theory, and econometrics. Students then complete a five-course elective program designed jointly by the student and the program advisor. The Master of Science in Quantitative Finance degree program is a specialized degree program designed to build upon the candidate's prior background.

### Accreditation

The Master of Science in Quantitative Finance is accredited by the AACSB-The International Association for Management Education.

### Admission - Master of Science in Quantitative Finance

Admission to the M.S. in Quantitative Finance (MSQF) program is based upon the completion of the general admission requirements of the Graduate School. For admission into the MSQF program, an acceptable score in the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and acceptable undergraduate performance are required. The GMAT is strongly preferred. Preference is given to individuals having extensive mathematics or computer science backgrounds. Students whose native language is not English must also take the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). International applicants scoring below acceptable levels on verbal portions of entrance examinations may be admitted conditional upon passing an English proficiency exam or upon completing the University's Graduate English Skills Program prior to beginning graduate coursework. The GMAT or GRE score shall not be used as the sole criterion for admitting applicants or the primary criterion for denying an applicant's admission into the MSQF program. Specifically, multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below, and the decision to deny admission is not based on any single criterion.

Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate GPA of at least 3.0 on a 4.0 scale as calculated by the Graduate School. The grade point average is calculated on your undergraduate degree using approximately the last 60 hours. A graduate grade point average is used in the index along with GMAT scores when it is a 3.0 or above and based on at least 24 hours.
2. GMAT or GRE sub-scores (verbal and quantitative) are also considered in the admission decision. A typical successful candidate will score at or above the 75th percentile on the quantitative portion, and at or above the 40th percentile on the verbal portion of either exam.
3. International Applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
4. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
5. Mathematics coursework through multivariate calculus (calculus III).
6. A satisfactory 200 word essay outlining the role that the MSQF degree is intended to play

in the applicant's career objectives.

7. Positive letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential for success in graduate school.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

### **Unconditional Admission**

For unconditional admission, items 1 through 6 above should indicate strongly the potential for successful academic performance at the Master's level. Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT or GRE) will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### **Probationary Admission**

An applicant deemed deficient in one or more of the above criteria may be considered for probationary admission upon careful review of his/her materials. An applicant admitted under this provision shall be expected to complete his/her first 12 hours of coursework with a grade of B or better.

### **Provisional, Deferred and Denied Admission**

Provisional admission may be granted if an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements. A deferred decision may be granted when a file is incomplete or when denial is inappropriate.

An applicant will likely be denied admission when three or more of items one through six above indicate lack of potential for success in the program. All applicant data will be evaluated carefully before a denial is issued.

### **Degree Requirements**

The M.S. in Quantitative Finance is designed to provide a specialized, highly analytical graduate education to financial managers, financial analysts, and technical personnel. The program consists of 36 credit hours of coursework in finance, economics, mathematics, statistics, and computer science. All students will complete a twenty-one-hour set of foundation classes consisting of:

ECON 5310 Microeconomic Theory  
FINA 5323 Investments  
FINA 5327 Financial Derivatives  
FINA 5330 Real Options  
FINA 5350 Mathematical Finance  
FINA 5351 Financial Modeling  
FINA 5392 Financial Econometrics

The remaining fifteen-hours of coursework are selected by the student, subject to the approval of the program advisor. Courses will be chosen from a list that includes: (1) finance elective classes (international finance, financial institutions, capital markets, real options, and capital budgeting), (2) economics (macroeconomic theory, econometrics, time series analysis), (3) mathematics (advanced calculus, real analysis, differential equations, stochastic processes, and numerical methods), (4) statistics (probability theory, mathematical statistics), and (5) computer science (programming languages, numerical methods, parallel processing, software engineering).

Students who do not have the appropriate background may have to take additional foundation coursework. Quantitative background appropriate to begin the MSQF program consists of a

minimum of 6 credit hours of calculus and 3 credit hours each in linear algebra, statistics, and computer programming. Other foundation coursework would include at least 3 credit hours each of microeconomics and finance.

## Master of Science in Real Estate

The purpose of the Master of Science in Real Estate degree program is to provide students an opportunity to obtain a better understanding of the mechanics of real estate decision making in modern society and a greater depth of training in the discipline of real estate decision making than is possible at the baccalaureate level. The specific objectives of the program are to prepare students for careers in business, government, research, and teaching and for further graduate study. In this program, students are exposed to the theory, research, and practical applications of numerous real estate content areas, including investment analysis, appraisal, real estate development, primary and secondary mortgage markets, and mortgage backed securities. The Master of Science in Real Estate degree program is a specialized degree program designed to build upon the candidate's background.

### Accreditation

The Master of Science in Real Estate is accredited by the AACSB-The International Association for Management Education.

### Admission - Master of Science in Real Estate

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.0 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GPA by 200 and adds the resulting value to the GMAT Score. An index score greater than 1070 or higher is typical of a successful candidate.
2. GMAT sub scores (verbal and quantitative) are also considered in the admission decision. GMAT sub scores greater than the 30th percentiles are typical of a successful candidate.
3. A GRE quantitative percentile greater than the 30th percentile and Verbal percentile greater than the 30th percentile is typical of a successful applicant.
4. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
5. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
6. Educational objectives and quality of written expression of the 200 word application essay.
7. Letters (2 are required) of recommendation from two persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

Due to the specialized nature of the MSRE, provisional and probationary admission decisions are infrequent options. Furthermore, please note that these are admission decision criteria and not application options (i.e., no one applies for provisional or probationary admissions).

### Unconditional Admission



For unconditional admission, the applicant's composite total from the index must be 1070 or higher and items 1 through 5 above should strongly indicate potential for successful academic performance as a graduate real estate student.

Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as the primary criterion for determining fellowship and/or scholarship eligibility.

#### **Probationary Admission**

For an applicant with an index score below 1070, probationary admission may be available if items 1-10 indicate a potential for successful academic performance as a graduate real estate student. Students who are admitted on probation will have one or more conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study.

#### **Provisional, Deferred and Denied Admission**

A provisional decision to admit may be granted when the applicant meets criteria for unconditional or probationary status but one or more applicant credentials are incomplete. A deferred decision may be made when an applicant's file is not sufficiently complete to make a final admission decision.

For an applicant with an index score less than 1000 and if items 1-10 do not indicate a potential for successful academic performance as a graduate real estate student admission will likely be denied. All applicant data will be carefully reviewed before an admission denial is made.

#### **Waiver of GMAT Score for Graduate Certificate in Real Estate Development Students**

Students who successfully complete the Graduate Certificate in Real Estate Development with a GPA of 3.5 or higher will, upon the recommendation of the Graduate Advisor and the Dean of Graduate Studies, be granted a waiver of the GMAT requirement for their application to the Master of Science in Real Estate program.

### **Degree Requirements**

The program, which can be completed by part-time students who attend classes during the late afternoon, evening hours, and Saturdays, is designed to accommodate students with divergent educational backgrounds and career interests. Each student's program of work must be approved by the Real Estate Graduate Advisor and it must contain a minimum of 15 semester hours in approved advanced graduate real estate courses taken at The University of Texas at Arlington.

A minimum of 36 semester hours is required. All classes must be approved by the Graduate Advisor in Real Estate. Students who do not have a bachelor's degree in business administration may have to take additional coursework (up to 3 semester hours) to acquire a sufficient general business foundation. Students may have foundation courses waived by the Graduate Advisor if they have completed equivalent courses.

#### **Foundation Course**

REAE 5311 Real Estate Analysis

#### **Required Courses**

REAE 5314 Seminar in Real Estate Development

REAE 5319 Seminar in Real Estate Finance

REAE 5321 Seminar in Real Estate Investments

REAE 5334 Seminar in Real Estate Appraisal

#### **Advanced Elective Courses**

All other 5000 level REAE courses



A minimum of 36 semester hours including six hours of thesis (REAE 5698 Thesis) is required if the student chooses to write a thesis. The thesis hours will involve working closely with one or more members of the graduate faculty from the Department of Finance and Real Estate on a research project in a specialized area of interest in real estate.

### Fast Track Programs

The Fast Track Program enables outstanding undergraduate UT Arlington Business students to satisfy degree requirements that will lead to a Master of Science in Real Estate (MSRE) while completing their undergraduate studies. If admitted, students will be allowed to take select graduate courses that may be used to satisfy both bachelor's and master's degree requirements. Admitted students will be allowed to complete 6 to 9 hours of selected graduate coursework as an undergraduate student. A GPA of 3.0 on the graduate work is required to continue taking graduate courses. Any Fast Track student who completes the 6 to 9 hours of graduate coursework with grades of B or better will be automatically admitted to Graduate School. The student would then be awarded his or her bachelor's degree. The student will not be required to take the GMAT, complete the Graduate School Application, and will have the related application fees waived.

## Graduate Certificate in Real Estate Development

### Objective

In keeping with the mission of The University of Texas at Arlington to provide lifelong learning opportunities, the Department of Finance and Real Estate now offers a Graduate Certificate in Real Estate Development. The Graduate Certificate in Real Estate Development is designed to provide qualified real estate professionals advanced instruction in real estate development and allow them to further their professional development. This post-baccalaureate Certificate provides an educational opportunity that is narrower in scope, and shorter in duration, than graduate degree programs. It is ideal for people transitioning from one sector of real estate into real estate development, or those in the process of satisfying education requirements for various professional real estate licenses.

### Admission

Admissions to the Graduate Certificate in Real Estate Development is based upon the general admission requirements of the graduate school. Generally applicants must have an undergraduate grade point average of at least 2.9 as calculated by the Graduate School. A graduate grade point average is used when the applicant has attained at least 24 graduate semester hours.

Applicants whose undergraduate GPA was less than a 2.9 may still be admitted to the Graduate Certificate in Real Estate Development program by meeting the admissions requirements for the M.S. Real Estate program.

### Course Requirements

The Graduate Certificate in Real Estate Development requires students to take and to complete with a minimum GPA of 3.0, five graduate real estate courses. The structure of the program is:

#### Foundation Course

REAE 5311 Real Estate Analysis

#### Required Courses

REAE 5314 Real Estate Development

REAE 5321 Real Estate Investments

REAE 5319 Real Estate Finance

REAE 5334 Real Estate Appraisal

#### Use of Courses toward Degree Program

Students that initially enroll in the Graduate Certificate in Real Estate Development may later use up to 15 hours of coursework from the Certificate program toward the Master of Science in Real Estate degree.

You may be entitled to know what information The University of Texas at Arlington (UT Arlington) collects concerning you. You may review and have UT Arlington correct this information according to procedures set forth in [UTS139](#). The law is found in sections [552.021](#), [552.023](#) and [559.004](#) of the Texas Government Code. For more information, see our [Privacy Policy](#).

## BLAW Courses

### BLAW5330 – LEGAL ENVIRONMENT OF BUSINESS

3 Lecture Hours · 0 Lab Hours

The basic structure and processes of the legal system are reviewed followed by coverage of key common law areas and major regulatory rules that impact business. The focus is on a working knowledge of the law that has the greatest impact on business today and the social and ethical issues that may be related to legal issues.

### BLAW5331 – LAW OF INTERNATIONAL BUSINESS

3 Lecture Hours · 0 Lab Hours

General principles of law applicable to international business including case law, statutory law, treaties, administrative law, and international agreements.

### BLAW5332 – BUSINESS LAW

3 Lecture Hours · 0 Lab Hours

This course provides the basic legal principles of business organizations and operations, with coverage including the law of contracts (both common law and the law of sales of goods), commercial paper, property (including bailments, documents of title, patents and copyrights), employment law, agency, business organizations, selected topics of government regulation of business (securities regulation, antitrust, and bankruptcy), money laundering, suretyship and creditors' rights, the Dodd-Frank Act of 2010, the Sarbanes-Oxley Act of 2002, and CPA professional responsibility and liability. Prerequisite: BLAW 5330 with a grade of C or higher.

## FINA Courses

### FINA5182 – INDEPENDENT STUDIES IN FINANCE

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a finance topic. Prerequisite: consent of instructor and department chair.

### FINA5199 – GRADUATE FINANCE INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in finance. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### FINA5299 – GRADUATE FINANCE INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in finance. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **FINA5311 – BUSINESS FINANCIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Study of providing the organization with funds necessary for its operation and of achieving effective utilization of funds. Primary emphasis on financial decision-making within organizations, and techniques of financial analysis and forecasting. Prerequisite: ACCT 5301 or departmental permission.

### **FINA5315 – HEALTH CARE FINANCIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Analysis of financial problems with an emphasis on the application of financial management principles and concepts to health care organizations.

### **FINA5323 – INVESTMENTS**

**3** Lecture Hours · **0** Lab Hours

Application of principles and techniques of investment management in solving investment problems of individuals and financial institutions. Considers apportionment of investment funds among alternatives, analysis of risk, valuation timing of security acquisitions. Prerequisite: FINA 5311

### **FINA5327 – FINANCIAL DERIVATIVES**

**3** Lecture Hours · **0** Lab Hours

Nature and functions of the various futures and options markets; hedging for risk reduction, speculative trading for profit; the role of futures and options in overall portfolio strategy, along with fundamental concepts such as basis, spreading, normal and inverted markets and money management. Prerequisite: FINA 5311 and 5323.

### **FINA5329 – PORTFOLIO AND SECURITY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

The use of economic and accounting data in the selection of securities. Examination of current and traditional techniques used by investment practitioners. Prerequisite: FINA 5311 and 5323.

### **FINA5330 – REAL OPTIONS**

**3** Lecture Hours · **0** Lab Hours

Option approaches to evaluating firm capital budgeting decisions. Techniques for making investment decisions involving physical assets of nonfinancial firms. Prerequisite: FINA 5311.

### **FINA5331 – INTERNATIONAL FINANCE**

**3** Lecture Hours · **0** Lab Hours

Examines ways in which financial decision-making processes are altered by operation in a multinational environment. Includes the effects of devaluation expectations, foreign exchange and investment controls. Also, case study materials related to actual decisions by multinational firms. Prerequisite: FINA 5311.

### **FINA5334 – FINANCIAL INSTITUTIONS AND MARKETS**

**3** Lecture Hours · **0** Lab Hours

An examination of major financial institutions and markets with emphasis on trends affecting the current operations, competitive position, and overall future of the primary financial intermediaries and the financial markets. Prerequisite: FINA 5311.

### **FINA5340 – FINANCIAL APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

Analysis of financial problems of business concerns, presented in case materials. Considers determination of capital needs, choosing among alternative capital investments, planning methods of financing new capital expenditures, and planning recapitalizations, mergers, and reorganizations. Prerequisite: FINA 5311.

### **FINA5350 – MATHEMATICAL FINANCE**

**3** Lecture Hours · **0** Lab Hours

Intensive review of the mathematics necessary for graduate work in finance, with application to selected areas of business finance, investment analysis and financial markets. Prerequisite: FINA 5311.

### **FINA5351 – SEMINAR IN FINANCIAL MODELING**

**3** Lecture Hours · **0** Lab Hours

Study of common financial modeling techniques are explored in this course. The primary focus is on portfolio optimization models and models used for pricing and analyzing derivative stock options, although most of these techniques have other applications. Students are provided with the opportunity to develop the skills needed to build financial models of their own. Prerequisite: FINA 5311.

### **FINA5382 – INDEPENDENT STUDIES IN FINANCE**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a finance topic. Prerequisite: departmental permission.

### **FINA5392 – SELECTED TOPICS IN FINANCE**

**3** Lecture Hours · **0** Lab Hours

In depth study of selected topics in finance. May be repeated when topics vary. Prerequisite: departmental permission.

### **FINA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Thesis. 5398 graded R (Research) or F only. Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **FINA5399 – GRADUATE FINANCE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in finance. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **FINA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Thesis. Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **FINA6192 – RESEARCH IN FINANCE**

**1** Lecture Hour · **0** Lab Hours

Independent study of advanced topics in finance under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

### **FINA6292 – RESEARCH IN FINANCE**

**2** Lecture Hours · **0** Lab Hours

Independent study of advanced topics in finance under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

### **FINA6301 – SEMINAR IN THE THEORY OF FINANCE**

**3** Lecture Hours · **0** Lab Hours

Development of the fundamental theories of modern finance from their microeconomic origins. Topics

include: investment under uncertainty, asset pricing models, market equilibrium, market efficiency, and expected utility theory. Prerequisite: FINA 5311.

### **FINA6311 – SEMINAR IN THE THEORY OF CORPORATE FINANCE**

3 Lecture Hours · 0 Lab Hours

Advanced theory of corporate finance. Capital budgeting, dividend policy, and capital structure. Prerequisite: FINA 5311

### **FINA6312 – SEMINAR IN THE THEORY OF INVESTMENTS**

3 Lecture Hours · 0 Lab Hours

Advanced theory of investments. Modern portfolio theory and the efficiency of capital markets. Prerequisite: FINA 5311.

### **FINA6313 – ADVANCED RESEARCH IN FINANCE**

3 Lecture Hours · 0 Lab Hours

Analytical methods commonly applied in the academic finance literature. Topics such as factor analysis in arbitrage pricing models and techniques for identification of nonstationarities in risk. Prerequisite: FINA 5311 and STAT 5301.

### **FINA6314 – ADVANCED RESEARCH IN FINANCE II**

3 Lecture Hours · 0 Lab Hours

Specialized and evolving techniques in financial research; topics such as identification of efficient markets, linear programming in capital budgeting, and multiple discriminant analysis in bankruptcy prediction and bond rating models. Prerequisite: FINA 5311 and STAT 5301.

### **FINA6390 – SEMINAR IN SPECIAL TOPICS IN FINANCE**

3 Lecture Hours · 0 Lab Hours

Doctoral level coverage of advanced topics in finance. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

### **FINA6392 – RESEARCH IN FINANCE**

3 Lecture Hours · 0 Lab Hours

Independent study of advanced topics in finance under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

## **REAE Courses**

### **REAE5182 – INDEPENDENT STUDIES IN REAL ESTATE**

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a real estate topic. Prerequisite: departmental permission.

### **REAE5199 – GRAD REAL ESTATE INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Practical training in real estate. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **REAE5299 – GRAD REAL ESTATE INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Practical training in real estate. Analysis of theory applied to real life situations. Course counts as an

elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **REAE5301 – SUSTAINABLE ISSUES IN THE BUILT ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

A survey-based course that analyzes current and historical sustainability issues. The global and political nature of this evolving discipline is emphasized. Additionally, a macro view of the components currently embodied in the practice of sustainability will be examined and discussed.

### **REAE5302 – SUSTAINABLE STRATEGIES IN THE BUILT ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Business strategies that emphasize quantitative methods, asset allocation, socially responsible investing, and evaluation research.

### **REAE5303 – SUSTAINABLE POLICIES IN THE BUILT ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Governmental, regulatory, internal reporting, and policy development related to sustainability. Grant writing will also be explored.

### **REAE5304 – SUSTAINABLE PROJECTS IN THE BUILT ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

A field-based study of buildings, developments, organizations, and companies that exemplify sustainable practices. Course will include elements of social networking and communication strategies.

### **REAE5311 – REAL ESTATE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Survey of real estate investment, appraisal and valuation, finance, market analysis, and other phases of the real estate development/management process.

### **REAE5312 – INTERNATIONAL PROPERTY MARKETS**

**3** Lecture Hours · **0** Lab Hours

Property markets are characterized by significant institutional differences that affect the nature and performance of national markets. Analysis of socio-economic and cultural factors influencing the operation of international markets.

### **REAE5313 – GIS & PROPERTY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

The increasing availability of geographically referenced property data offers significant potential for real estate research and modeling. Covers fundamentals of Geographic Information Systems (GIS) (Concepts, principles, and functions) and essential skills for applying GIS to real estate industry problems.

### **REAE5314 – SEMINAR IN REAL ESTATE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Topics relating to site selection, design, market analysis, financial feasibility, and management in the real estate development process. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5315 – REAL ESTATE TRENDS & ISSUES**

**3** Lecture Hours · **0** Lab Hours

Analysis of specialized topics associated with emerging trends and issues in the real estate industry using current literature and case studies.

### **REAE5316 – ADAPTIVE REUSE & REDEVELOPMENT OF COMMERCIAL INVESTMENT REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

The tools and techniques associated with the market and financial feasibility analysis of adaptively reusing and redeveloping existing properties into economically viable commercial investment real estate.

### **REAE5317 – REAL ESTATE CONSTRUCTION MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Topics relating to construction management for commercial investment real estate.

### **REAE5318 – SUSTAINABLE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Sustainability perspectives about values, rights, property and what constitutes an optimum human environment; sustainability principles and case studies emphasizing on-the-ground, incentive-based commercial investment real estate development that balances economic growth with environmental quality. Projects will include those in urban areas as well as those in rural areas focusing on agricultural elements.

### **REAE5319 – SEMINAR IN REAL ESTATE FINANCE**

**3** Lecture Hours · **0** Lab Hours

Study of real property financing methods; analysis of cost of borrowing, sources of funds, and mortgage terms; emphasis on construction and permanent financing of commercial and industrial properties. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5320 – TEXAS REAL ESTATE STUDY TOUR**

**3** Lecture Hours · **0** Lab Hours

A field-based study of Texas real estate markets, focusing on projects in Austin, San Antonio, Houston, and Dallas-Fort Worth.

### **REAE5321 – SEMINAR IN REAL ESTATE INVESTMENT**

**3** Lecture Hours · **0** Lab Hours

Introduction to analytical techniques, sources of financing, and other factors related to real estate investment. Stresses current developments and topics. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5322 – COMMERCIAL LEASE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Application of critical occupancy decisions such as comparative lease analysis, lease vs. purchase analysis, lease buyout analysis, and sale-leaseback analysis to optimize user space decisions.

### **REAE5323 – REAL ESTATE PROJECT STUDIO**

**3** Lecture Hours · **0** Lab Hours

Studio based course focused on a commercial real estate project.

### **REAE5324 – REAL ESTATE ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

A review of the nature of urban areas and the development of the urban economics as an economic discipline. Emphasis will be on identifying location patterns in urban areas, policy issues, real estate and urban housing options, government issues in urban areas, and urban social problems. Students will utilize data analytics and projective techniques in developing projects based on current local urban real estate issues and opportunities.

### **REAE5327 – ADVANCED REAL ESTATE MARKET ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Study of advanced market analysis techniques and methods, including trend analysis and demand forecasting. Emphasis is on the application of these methods to commercial property markets.

### **REAE5334 – SEMINAR IN REAL ESTATE APPRAISAL**

**3** Lecture Hours · **0** Lab Hours

Market, cost, and income approaches with stress on income forecasting and capitalization. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5337 – REAL PROPERTY LAW**

**3** Lecture Hours · **0** Lab Hours

Legal property theory underlying real estate transactions and relationships including estates and interests in land, conveyances, and mortgages.

### **REAE5350 – QUANTITATIVE METHODS FOR REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Study of advanced statistical, modeling, and econometric techniques as applied to real estate markets. Emphasis on the integration of these techniques with traditional real estate analysis.

### **REAE5382 – INDEPENDENT STUDIES IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a real estate topic. Prerequisite: departmental permission.

### **REAE5392 – SELECTED TOPICS IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in real estate. May be repeated when topics vary. Prerequisite: REAE 5311.

### **REAE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: departmental permission.

### **REAE5399 – GRAD REAL ESTATE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in real estate. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **REAE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: departmental permission.

### **REAE6390 – SEMINAR IN SPECIAL TOPICS IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Doctoral level coverage of advanced topics in real estate. May be repeated for credit when topics vary. Prerequisite: REAE 5311.

### **REAE6392 – RESEARCH IN REAL ESTATE**



**3 Lecture Hours · 0 Lab Hours**

Independent study of advanced topics in real estate under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: REAE 5311.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax 817.272.1494  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- [Home](#)
- [Degree Requirements](#)
- [Fields of Study](#)
  - [School of Architecture](#)
  - [College of Business](#)
    - [Accounting](#)
    - [Business Administration](#)
    - [Economics](#)
    - [Finance and Real Estate](#)
    - [Health Care Administration](#)
    - [Information Systems & Operations Management](#)
    - [Management](#)
    - [Marketing](#)
  - [College of Education and Health Professions](#)
  - [College of Engineering](#)
  - [College of Liberal Arts](#)
  - [College of Nursing](#)
  - [College of Science](#)
  - [School of Social Work](#)
  - [School of Urban and Public Affairs](#)
- [Admissions Requirements & Procedures](#)
- [General Information & Regulations](#)
- [Graduate Calendar](#)
- [Graduate Faculty](#)
- [Table of Contents](#)
- [Index](#)

## Health Care Administration

College of Business

Web [www2.uta.edu/gradbiz/healthadmin/](http://www2.uta.edu/gradbiz/healthadmin/)

Email [hcad@uta.edu](mailto:hcad@uta.edu)

Phone 817.272.1287

Fax 817.272.0339

**701 S West Street**

---

### Degrees / Certificates

#### Master's Degrees

Healthcare Administration, M.S.

#### Certificates

Health Care Administration Certificate

---

### Graduate Faculty

#### Director

[Demetria Wilhite](#)

#### Clinical Professor

[Mike West](#)

---

### Graduate Advisors

#### [Chandra Subramaniam](#)

*Health Care Administration, Non-Degree Seeking*

*Healthcare Administration, M.S.*

#### [Demetria Wilhite](#)

*Healthcare Administration, M.S.*

---

### Department Information

#### Courses

## Department Information

---

## Objectives

### Admission

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional, Deferred and Denied Admission**

### Degree Requirements

#### Graduate Certificate Program

- **Admission**
- **Program of Study**
- **Transfer to the M.S. Program**

#### Integrated Degree Plans

- **Bachelor of Science in Biology and Master of Science in Health Care Administration**

#### Dual Degree Program

- **Master of Science in Health Care Administration and Master of Science in Nursing**

## Objectives

The program in Health Care Administration is designed to provide graduate students an integrated, contemporary, and multidisciplinary education. Diverse topics are integrated into the curriculum, research and residencies to provide:

1. An understanding of the modern health industry
2. Knowledge, skills and abilities to assume administrative roles in various organizations in the health industry
3. Opportunities to develop leadership skills
4. Interactions with diverse specialists in the health industry to evaluate and resolve administrative problems

## Admission

Admission to the M.S. in Health Care Administration (HCAD) program is based upon the completion of the general admission requirements of the Graduate School. For HCAD program admission a score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and record of one's undergraduate academic performance are required. Students for whom English is not their native language must achieve a TOEFL score of at least 575 (paper-based) or 230 (computer-based). International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework. Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. A standardized test score (GMAT or GRE) will not be used as the sole criterion for admitting applicants or the primary criterion for denying an applicant's admission to the HCAD program.

Multiple criteria are used to make admission decisions. Quantitative measures include an applicant's GMAT or GRE scores and grade point average as calculated by the Graduate School. These measures are integrated into a formula, or index, that multiplies the grade point average by 200 and adds the total GMAT score. Index factors are weighed equally at the outset of applicant evaluation. A graduate grade point average is used in the index when it is 3.0 or above and is based on at least 24 semester hours. For unconditional admission, the applicant's composite total from the index must be 1050 or higher and items 1 through 5 above should strongly indicate

potential for successful academic performance as a graduate health care administration student.

Along with grade point average and GMAT or GRE scores, admission criteria include the following:

1. GMAT or GRE sub scores (verbal and quantitative)
2. GMAT or GRE writing sample
3. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
4. Educational objectives and quality of written expression of the application essay
5. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience
6. Undergraduate Major
7. General and specific program accreditation status of degree granting institution
8. Professional work experience
9. Professional certification or licensure
10. A personal interview, at the discretion of the program advisor

### **Unconditional Admission**

The GMAT or GRE test may be waived for applicants with an earned graduate degree in an appropriate health care related discipline or profession.

The GMAT or GRE test may also be waived for applicants with five or more years of increasing responsibility in managerial, professional, and/or technical positions in the health care industry, and with a 3.0 grade point average on undergraduate work as calculated by the Graduate School; detailed work history required with application.

The GMAT or GRE test may also be waived for applicants who have (within the last 3 years) or will receive an undergraduate degree from UT Arlington with a GPA of 3.2 or higher, as calculated by the graduate school.

Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT or GRE) will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### **Probationary Admission**

For an applicant with an index score below 1050, probationary admission may be available when at least three items of 1 through 5 above strongly indicate potential for successful academic performance as a graduate health care administration student. Items 6 through 10 will also be used to identify positive indicators for admission. Students who are admitted on probation will have one or more conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study.

### **Provisional, Deferred and Denied Admission**

A provisional decision to admit may be granted when the applicant meets criteria for unconditional or probationary status but one or more applicant credentials are incomplete. A deferred decision may be made when an applicant's file is not sufficiently complete to make an admit or deny decision.

For an applicant with an index score less than 1000 and other evidence that indicates lack of potential for academic success as a graduate health care administration student, admission will likely be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

## Degree Requirements

The M.S. Degree in health Care Administration requires 39 hours of specified coursework. The thirteen courses are normally taken in the following sequence.

1. HCAD 5301 Health Care Administration I
2. HCAD 5337 Human Resources Management, Ethics, Leadership, and Teamwork
3. HCAD 5305 Financial Accounting for Health Care Industry
4. HCAD 5306 Managerial Accounting for Health Care Industry
5. FINA 5315 Health Care Financial Management
6. HCAD 5310 Health Care Law
7. INSY 5350 Health Care Information Systems
8. OPMA 5377 Health Care Quality Assessment
9. BSTA 5315 Statistical Methods for Health Care Administrators
10. MARK 5330 Service Marketing Management
11. ECON 5333 Economics of Health
12. HCAD 5390 Strategic Management of Health Care Organizations
13. HCAD 5399 Residence/Internship

Together these courses provide the student with a general background in business and economics and industry relevant knowledge in all of the fundamental areas of managing health care organizations. The residence or internship course requirement can be satisfied in either of two methods. The residence options are as follows:

**Working Residence/Internship.** The completion of a residence/Internship is a primary component of the program for students who do not have prior appropriate professional work experience in a health-related organization. The residence provides students the opportunity to acquire firsthand professional knowledge of and experience with the functioning of a health-related organization. The working residence requires the completion of 240 hours of approved work experience in a professional capacity and a final written report, related to the student's residence, supervised by a member of the faculty of the degree program. The Graduate Advisor will provide overall supervision and coordination of the residence.

**Residence/Internship Substitute.** A student who has substantial and acceptable work experience in a supervisory or professional position may qualify for the residence substitute. Work experience is approved by the Graduate Advisor. Accordingly, a student may request:

**Option I.** Design, conduct and complete a supervised research project, an effort equivalent in scope to three (3) hours of graduate research-oriented courses, that is highly relevant to the student's intended future professional focus in lieu of a working residence; the project will be supervised by at least one member of the faculty of the degree program, or

**Option II.** Complete an approved graduate course with significant research content highly relevant for the student's intended future professional field of specialty.

## Graduate Certificate Program

### Admission

The certificate program is available to any student who has been admitted into the Graduate School at UT Arlington. The student should contact the Graduate Advisor to declare the intent to earn the certificate before enrolling in courses to satisfy certificate requirements.

### Program of Study

The certificate requires the completion of at least 12 hours of courses selected from HCAD 5301, HCAD 5310, HCAD 5390, ECON 5333, HCAD 5306, FINA 5315, INSY 5350, or MARK 5330 as

approved by the Graduate Advisor. A grade of A or B must be received for all courses that can be applied to meet certificate requirements.

### Transfer to the M.S. Program

A student in the Certificate Program must apply for admission and meet all admission requirements to enter the M.S. program.

## Integrated Degree Plans

### Bachelor of Science in Biology and Master of Science in Health Care Administration

A five-year curriculum designed to prepare students for careers in health care administration. The curriculum also prepares students for medical school and advanced study. Students are required to take courses from life sciences, business and liberal arts, culminating in a five-year Master of Science Degree in Health Care Administration (HCAD), including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Business and the College of Science. The BS in Biology will be conferred at the same time that the student is awarded the MS in Health Care Administration. If a student engaged in this joint degree program is not accepted into the HCAD graduate program, or enters the HCAD program and fails to complete the requirement for the master's degree in HCAD, then in order to earn a BS in Biology, the student must take the same, full complement of courses required to earn the BS as taken by students not enrolled in the BIOL/HCAD joint program.

Students interested in this integrated undergraduate and graduate degree plan should consult with the Biology undergraduate advisor and the Health Care Administration graduate advisor.

## Dual Degree Program

### Master of Science in Health Care Administration and Master of Science in Nursing

The College of Business and the School of Nursing offer a dual degree consisting of the M.S. in Health Care Administration and the Master of Science in Nursing. Both degrees focus on administration and health care content and can be completed with a minimum of 56 hours total. Students can expand their knowledge and skills of nursing while also preparing themselves for administrative positions in a variety of health care organizations. Persons interested in pursuing both degrees simultaneously should review the dual degree arrangements presented in the introductory sections of the catalog and consult with both the advisor of the M.S. in Nursing and the advisor of the M.S. in Health Care Administration.

## HCAD Courses

### HCAD5192 – SPECIAL TOPICS IN HEALTH CARE ADMINISTRATION

1 Lecture Hour · 0 Lab Hours

In-depth study of selected topics in health care administration.

### HCAD5199 – GRADUATE HEALTH CARE ADMINISTRATION INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in health care administration. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

## **HCAD5292 – SPECIAL TOPICS IN HEALTH CARE ADMINISTRATION**

**2** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in health care administration.

## **HCAD5299 – GRADUATE HEALTH CARE ADMINISTRATION INTERNSHIP**

**2** Lecture Hours · **0** Lab Hours

Practical training in health care administration. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

## **HCAD5301 – HEALTH CARE ADMINISTRATION I**

**3** Lecture Hours · **0** Lab Hours

Introduction to health care; legislation; reimbursement systems; characteristic administrative and clinical roles responsibilities and education; public health care structures; regulatory agencies; health industry trends; and advances in research and technologies.

## **HCAD5302 – HEALTH CARE ADMINISTRATION II**

**3** Lecture Hours · **0** Lab Hours

Managed care; types of health care delivery systems; national health care policy; teamwork in primary care; management of cost and quality of care; legal issues; ethical issues, including bioethics and business ethics; changing roles of health care professionals; varieties of domestic, public and international health care delivery systems.

## **HCAD5305 – FINANCIAL ACCOUNTING FOR HEALTH CARE INDUSTRY**

**3** Lecture Hours · **0** Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of financial accounting for health care industry.

## **HCAD5306 – MANAGERIAL ACCOUNTING FOR HEALTH CARE INDUSTRY**

**3** Lecture Hours · **0** Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of managerial accounting for health care industry. Prerequisite: HCAD 5305.

## **HCAD5310 – HEALTH CARE LAW**

**3** Lecture Hours · **0** Lab Hours

Coverage of statutory and case law of the health care industry. Topics include patient rights and malpractice, employment and compensation matters, insurance and claims, and government agencies that regulate aspects of health services delivery.

## **HCAD5337 – ETHICS, LEADERSHIP, AND TEAMWORK**

**3** Lecture Hours · **0** Lab Hours

Examines the leadership process, change management, and high-performance team-building strategies. Emphasis will be placed on the development of self-awareness and skills necessary to lead. Identification of values and ethical issues in health care administration will also be stressed through the application of ethical principles and theories of decision making in the analysis of ethical dilemmas.

## **HCAD5390 – STRATEGIC MANAGEMENT FOR HEALTH CARE ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

Development of skills necessary for managing health care organizations from a strategic perspective. Particular emphasis is given to the use of systematic assessment of the environment and the organization,

as well as the development and implementation of business strategies to meet the needs of stakeholders. Must be taken in last semester of with permission of the Graduate Advisor.

### **HCAD5392 – SPECIAL TOPICS IN HEALTH CARE ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in health care administration.

### **HCAD5398 – RESEARCH IN HEALTH CARE ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of a faculty member.

### **HCAD5399 – GRADUATE HEALTH CARE ADMINISTRATION INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in health care administration. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Information Systems & Operations Management

College of Business

### Chair Gregory Frazier

Web [www.uta.edu/insyopma/](http://www.uta.edu/insyopma/)

Email [insy.om@uta.edu](mailto:insy.om@uta.edu)

Phone 817.272.3502

Fax 817.272.5801

[535 Business Building](#)

---

### Degrees / Certificates

#### Master's Degrees

Business Analytics, MS  
Information Systems, M.S.

#### Doctoral Degrees

Information Systems (Business Administration), Ph.D.  
Mathematical Sciences, Information Systems, Ph.D.

---

### Graduate Faculty

[Kay yut Chen](#)

#### Professor

[Revenor Baker](#)  
[Mark Eakin](#)  
[Gregory Frazier](#)  
[Radha Mahapatra](#)  
[M K Raja](#)  
[Craig Slinkman](#)  
[James Teng](#)  
[Mary Whiteside](#)

#### Associate Professor

[Alan Cannon](#)  
[Sridhar Nerur](#)  
[Edmund Prater](#)  
[Riyaz Sikora](#)  
[Jingguo Wang](#)  
[Jie Zhang](#)

#### Senior Lecturer

[Carolyn Davis](#)

---

## Graduate Advisors

### Carolyn Davis

*Information Systems, M.S.*

### Gregory Frazier

*Information Systems (Business Administration), Ph.D.*

### Radha Mahapatra

*Information Systems (Business Administration), Ph.D.*

### Chandra Subramaniam

*Information Systems, M.S.*

*Information Systems, Non-Degree Seeking*

---

## Department Information

### Courses

# Department Information

### Objective: Master of Science in Information Systems

### Objective: Ph.D. in Business Administration Program

### Admission: M.S.I.S. Program

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional, Deferred and Denied Admission**

### Degree Requirements

- **Waivers and Transfer Credit**

## Objective: Master of Science in Information Systems

The objective of the Master of Science degree in Information Systems is to provide qualified students with both a general knowledge of business and a specialized knowledge of information systems. Students are exposed to the theory, research, and practical applications of numerous information systems areas including management information systems, database management systems, systems analysis and design, and data communications; and may take electives in distributed systems, information resource management, general systems concepts, electronic commerce, ERP, decision support systems, problem formulation, computer science, management sciences, research, and other related fields. The program is designed to prepare students for information systems careers in government and nonprofit organizations as well as in business and industry.

## Objective: Ph.D. in Business Administration Program

The objective of the Ph.D. degree in Business Administration (with majors in information systems, operations management, or business statistics) is primarily to develop scholars with an ability to teach and conduct independent research. This is accomplished through a combination of rigorous coursework and research activities. This course provides fundamental knowledge in the various areas of information systems, and offers insights into research topics of interest to IS researchers. The research interests of our INSY faculty members encompass technical, managerial, and

organizational issues dealing with the development and deployment of information systems.

For a concentration in Operations Management (OPMA), coursework addresses various areas of the field, such as supply chain management, service operations, quality management, and inventory management. The goal of the OPMA Ph.D. program is to provide students with a balanced set of research methods and concepts to better understand and analyze operational problems and issues. Research approaches include empirical methods, conceptual techniques, and modeling.

For a concentration in Business Statistics (STAT), coursework can be taken in a wide variety of statistical areas focusing on different statistical approaches and techniques. Some STAT coursework can be taken from different departments across the university, as appropriate for the student's interests. The goal of the STAT Ph.D. program is to provide students with fundamental knowledge of common statistical approaches and techniques used in business analysis and research for improved decision-making.

### **Admission: M.S.I.S. Program**

Admission to the M.S. in Information Systems (MSIS) program is based upon the completion of the general admission requirements of the Graduate School. For admission into the MSIS program an acceptable score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and acceptable academic undergraduate performance are required. The GMAT is strongly preferred. The GMAT or GRE test may be waived for applicants with an earned graduate degree in an appropriate information systems related discipline or profession. The GMAT or GRE test may also be waived for applicants with five or more years of increasing responsibility in managerial, professional, and/or technical positions in the information systems or related field, and with a 3.0 grade point average on undergraduate work as calculated by the Graduate School; detailed work history required with application. The GMAT or GRE test may also be waived for applicants who have (within the last 3 years) or will receive an undergraduate degree from UT Arlington in a related field with a GPA or 3.0 or higher, as calculated by the graduate school.

Students for whom English is not their native language must take the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework.

A standardized test score (GMAT or GRE) will not be used as the sole or primary criterion for determining an applicant's admission to the MSIS program. Specifically, multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to deny admission is not based on any single criterion.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.00 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GMAT by 200 and adds the resulting value to the GMAT score. An index score greater than 1080 is typical of a successful candidate. The grade point average is calculated on your undergraduate degree using approximately the last 60 hours. A graduate grade point average is used in the index when it is 3.0 or above and is based on at least 24 hours.
2. Either the GMAT or the GRE will be considered for an admission decision. Both Quantitative and Verbal percentiles above the 40th percentile on the GRE and the 30th percentile on the GMAT indicate the ability to be successful in the MSIS program.
3. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with

sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.

4. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
5. Educational objectives and quality of written expression of the 200 word application essay.
6. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
7. General and specific program accreditation status of degree granting institution.
8. Professional work experience. Applicants should submit a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. In addition, the immediate supervisor should submit a letter confirming work status.
9. Professional certification or licensure.

### Unconditional Admission

For unconditional admission, the applicant's composite total from the GMAT-based index must be 1080 or higher, and items 1 through 6 above should strongly indicate potential for successful academic performance as a graduate information systems student. If an applicant falls below the GMAT Verbal percentile of 30 and/or the GMAT Quantitative percentile of 30, corroborating evidence of proficiency in that skill will be reviewed.

There is no equivalent index created using GRE scores. For students submitting the GRE, for unconditional admission, GRE Verbal and Quantitative percentiles should be above the 40th percentile, and items 1 through 9 above should strongly indicate potential for success in the MSIS program.

Students who are unconditionally admitted must have a minimum undergraduate grade point average of 3.00 as calculated by the Graduate School (or 3.00 at the graduate level), and enroll for a minimum of six semester credit hours to be eligible for available fellowship and/or scholarship support. A standardized test score will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### Probationary Admission

For an applicant with an index score below 1080, probationary admission may be available when at least three items of 1 through 6 above strongly indicate potential for successful academic performance as a graduate information systems student. Items 7 through 10 will also be used to identify positive indicators for admission. When GMAT verbal or quantitative percentiles are below the 30th percentile, probationary admission may be available. For applicants submitting the GRE as part of the application for admission, when GRE verbal or quantitative percentiles are below the 40th percentile, probationary admission may be available. Students admitted on probationary status for low verbal or quantitative percentiles, must satisfactorily complete one or more English and/or math courses in the first two semesters as specified by the Graduate Advisor. Students who are admitted on probation must meet the conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study and any required undergraduate course.

### Provisional, Deferred and Denied Admission

Provisional admission may be granted if an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements. A student will not be permitted to enroll in the Graduate School with a provisional status for more than one semester. Provisional admission does not guarantee subsequent admission on an unconditional basis.

For an applicant who does not meet minimum acceptable scores on the GMAT, and other evidence indicates lack of potential for academic success as a graduate information systems

student, admission will be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

## Degree Requirements

The Department of Information Systems and Operations Management provides two Master's tracks: a Thesis Option for those intending to later pursue a Ph.D. in Information Systems, and a Non-Thesis track, a traditional flexible option. The thesis track program provides preparation for entry into a Ph.D. program. The second option is the flexible non-thesis program enabling a degree candidate greater flexibility in designing their program.

The thesis option consists of a minimum of 30 semester hours; BSTAT 5325, INSY 5309, INSY 5335, INSY 5341, INSY 5357, three elective courses approved by the Graduate Advisor, and six hours of thesis work taken in the last semester. The thesis student must be enrolled in six hours of thesis. Once the student is enrolled in the thesis course, continuous enrollment is expected. The student must be enrolled in six hours of thesis during the semester in which the thesis is defended and the final Master's Examination is unconditionally passed. The degree candidate must defend the thesis in a final oral examination open to all members of the Faculty.

The non-thesis option consists of 33 semester hours; BSTAT 5325, INSY 5309, INSY 5335, INSY 5341, INSY 5357, INSY 5375, and five elective courses approved by the Graduate Advisor.

The non-thesis option electives can be focused in two tracks: systems development and business analytics. The systems development track concentrates on the analysis, design, and implementation of business systems and their management issues. Courses in this track cover such topics as object-oriented technology, data base design, advanced systems design techniques, and project management. The business analytics track concentrates on technologies and skills needed to analyze big data to gain insights which help improve business decisions and planning. Courses in this track would cover such topics as data mining, data warehousing, statistical computing, and selective statistics topics. The student must meet with the MSIS Graduate Advisor to determine the appropriate coursework for the selected track.

When there is equivalent work/course experience, the student must meet with the MSIS Graduate Advisor to select alternate coursework. An approved 3-credit hour graduate internship (INSY 5399) may also be taken as an elective.

## Waivers and Transfer Credit

There are three types of required courses: deficiency, core and advanced. Programs of work will normally vary in length from 36 to 45 hours (plus deficiency courses), depending upon waivers granted. The first three waivers of core courses will be used to expand the number of electives in the advanced program rather than shorten the overall program. Additional waivers of core courses may reduce the program to a minimum of 36 hours. Applicants may have both deficiency and core courses waived without the requirement for a substitute course if they have completed, during the last 10 years, a similar course at a recognized college or university and received a "B" or better grade.\* Extensions to this 10 year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience. Additionally, a maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by program advisor. Transfer of graduate classes from other universities will be considered on a case by case basis.

\* Note: The University of Texas at Austin offers Business Foundations Programs (BFP) for non-business majors that provide solid foundations in basic business concepts. BFP courses and courses from equivalent programs for non-business majors at other colleges/universities may not be used for course waiver credit.

## BSTAT Courses

**BSTAT5301 – INTRODUCTION TO STATISTICS****3** Lecture Hours · **0** Lab Hours

Introduction to statistics, designed to prepare graduate students to become competent consumers of statistical information that they will encounter in their professional and personal lives. Students should be able to perform basic statistical analyses and to think critically when interpreting statistical results. Topics include probability, random variables, sampling distributions, confidence intervals, tests of hypotheses, and simple regression. May not be counted as an MBA foundation course or elective. Prerequisite: MATH 1315.

**BSTAT5303 – QUANTITATIVE ANALYSIS****3** Lecture Hours · **0** Lab Hours

Study of the methods of quantitative analysis used in business administration. Topics include matrix algebra, systems of linear equations, differential and integral calculus, linear programming, classical optimization, and a survey of management science models. Prerequisite: MATH 1315.

**BSTAT5315 – STATISTICAL METHODS FOR HEALTH CARE ADMINISTRATORS****3** Lecture Hours · **0** Lab Hours

Statistical methods designed to prepare graduate students to become competent producers and consumers of data analyses and to use statistical thinking to approach managerial decision making. Students should be familiar with the effectiveness and limitations of various applicable techniques and should be able to recognize when additional statistical expertise is required. Topics include an introduction to evidenced based medicine, probability with an emphasis on the poor predictive value of imperfect diagnostics for rare conditions, standardizing and trending data, graphic and numeric descriptions of data, concepts of inference such as margins of error and significance of results, concepts of quality control including time series analysis and forecasting, and health care applications of discrete random variables with Poisson or binomial probability mass functions. It is recommended that students who have no recent courses in statistics take BSTAT 5301 prior to BSTAT 5315.

**BSTAT5325 – ADVANCED STATISTICAL METHODS****3** Lecture Hours · **0** Lab Hours

Advanced statistical methods designed to prepare graduate students to become competent producers and consumers of statistical methods and to use statistical thinking to approach managerial decision making in their careers. They should be able to recognize the strengths and weaknesses of applicable techniques and when additional statistical expertise is required. Topics include multiple regression, correlation, experimental design and analysis, time series and other statistical methods with emphasis on their application to managerial decision making. It is strongly recommended that students who have no recent courses in statistics take BSTAT 5301 prior to BSTAT 5325.

**BSTAT5330 – NONPARAMETRIC STATISTICS****3** Lecture Hours · **0** Lab Hours

A survey of statistical tools which may be used when the normal assumptions of parametric statistics cannot be made; including procedures for categorical data, methods involving ranks, bootstrapping, and Kolmogorov-Smirnov type techniques. Cross-listed with BSAD 6330. Prerequisite: BSTAT 5325 or equivalent.

**BSTAT5331 – DATA VISUALIZATION****3** Lecture Hours · **0** Lab Hours

Investigation of recent advances in data graphics to support business analytics. Concepts include graphical depiction, analysis of data structure and graphical software. Visualization topics would include exploratory analysis of univariate and multivariate data using graphical software, e.g., Lowess Smoothing and Sunflower Plots. Cross-listed with INSY 5331. Prerequisite: BSTAT 5325 or equivalent.

**BSTAT5339 – PRINCIPLES OF BUSINESS DATA MINING****3** Lecture Hours · **0** Lab Hours

This course provides an overview of the life cycle stages of a data mining project, contexts in which data mining is applied, a survey of data mining techniques, and measuring the effect of the resulting action.



Additional topics include communicating with management representatives and IT professionals, ethical issues in data mining, and relationships with reference disciplines such as statistics, artificial intelligence, machine learning and database. Learning is facilitated by a combination of lectures, group projects, and homework assignments. This course is cross-listed with INSY 5339. Prerequisite: BSTAT 5325. May be taken concurrently.

### **BSTAT5360 – COMPUTATIONAL TECHNIQUES FOR BUSINESS ANALYTICS**

**3** Lecture Hours · **0** Lab Hours

Computer software is the primary analytical tool for business analytics and modern research methods. Data analysts, statisticians, and researchers need technologies and skills using the computer as a tool for structuring and cleaning data sets, creating validation samples, conducting analyses, fitting models, simulating stochastic systems, model validation, and model presentation. Emphasis is placed on the use of data analytic software. Cross-listed with INSY 5360. Prerequisite: BSTAT 5325 or equivalent.

### **BSTAT5392 – SELECTED TOPICS IN BUSINESS STATISTICS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in business statistics. May be repeated when topics vary.

### **BSTAT5399 – GRADUATE BUSINESS ANALYTICS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in business statistics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

## **INSY Courses**

### **INSY5182 – INDEPENDENT STUDIES IN INFORMATION SYSTEMS**

**1** Lecture Hour · **0** Lab Hours

Extensive analysis of an information systems topic. Prerequisite: permission of instructor.

### **INSY5199 – GRADUATE INFORMATION SYSTEMS INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

Practical training in information systems. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **INSY5299 – GRADUATE INFORMATION SYSTEMS INTERNSHIP**

**2** Lecture Hours · **0** Lab Hours

Practical training in information systems. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **INSY5309 – OBJECT-ORIENTED BUSINESS PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours

Topics include fundamental programming structures, objects and classes, inheritance, and other basic concepts related to OO programming.

### **INSY5331 – DATA VISUALIZATION**

**3** Lecture Hours · **0** Lab Hours

Investigation of recent advances in data graphics to support business analytics. Concepts include graphical depiction, analysis of data structure and graphical software. Visualization topics would include exploratory analysis of univariate and multivariate data using graphical software, e.g., Lowess Smoothing and Sunflower Plots. Cross-listed with INSY 5331. Prerequisite: BSTAT 5325 or equivalent.

## **INSY5333 – INFORMATION TECHNOLOGIES FOR STRATEGIC MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

A nontechnical, managerially-oriented introduction to information technology applications that enhance an organization's competitive effectiveness. Topics include: Executive Information Systems (EIS), Enterprise Resource Planning (ERP), Supply Chain Management (SCM) systems, data warehousing and mining, business intelligence, knowledge management, e-business, and approaches to integrate these technologies with corporate strategic planning and management. Graded A, B, C, D, F, W.

## **INSY5335 – APPLIED DATABASE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Concepts, tools, and technologies associated with the design, implementation and management of large databases are presented. Topics include data models (with emphasis on E/R model and relational model), database design and implementation, database query language, transaction management, and distributed databases. Recent advances in data management are also discussed. Use of a commercial DBMS is required. Prerequisite: INSY 5309 or approval of MSIS Graduate Advisor

## **INSY5337 – DATA WAREHOUSING AND BUSINESS INTELLIGENCE**

**3** Lecture Hours · **0** Lab Hours

This course covers concepts, tools, and technologies associated with the design and implementation of data warehousing (DW) and business intelligence (BI) applications. Topics covered include data warehouse architecture and infrastructure, dimensional modeling, Extraction Transformation and Loading (ETL), On Line Analytical Processing (OLAP), data quality, and planning and implementation of a DW & BI application. The course objectives are met through a combination of lectures, class projects and homework assignments. Hands-on experience in developing and deploying a DW & BI application is provided. Prerequisite: INSY 5335

## **INSY5339 – PRINCIPLES OF BUSINESS DATA MINING**

**3** Lecture Hours · **0** Lab Hours

This course provides an overview of the life cycle stages of a data mining project, contexts in which data mining is applied, a survey of data mining techniques, and measuring the effect of the resulting action. Additional topics include communicating with management representatives and IT professionals, ethical issues in data mining, and relationships with reference disciplines such as statistics, artificial intelligence, machine learning and database. Learning is facilitated by a combination of lectures, group projects, and homework assignments. This course is cross-listed with BSTAT 5339. Prerequisite: BSTAT 5325. May be taken concurrently.

## **INSY5340 – MANAGING THE DIGITAL ENTERPRISE**

**3** Lecture Hours · **0** Lab Hours

This course examines a wide variety of topics important to understanding and managing the Digital Enterprise. Topics may include: Internet infrastructure and related technologies; e-business models; security; ethical, legal, global, and social concerns; and managerial and marketing issues.

## **INSY5341 – ANALYSIS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

Analysis and design phase of systems development life cycle. Topics include systems survey, functional specification, interface specification, data design, program design, system testing, and implementation. Prerequisite: INSY 5335

## **INSY5342 – ADVANCED SYSTEMS DESIGN**

**3** Lecture Hours · **0** Lab Hours

This course provides an understanding of state-of-the-art software development methodologies, including those that are fast emerging. The focus will be on how these new methods differ from traditional practices and what research opportunities they afford to IS researchers. There will be a strong emphasis on technical as well as on socio-technical aspects of software development in the context of these new methodologies. Prerequisite: INSY 5341.



## **INSY5343 – DATA COMMUNICATIONS AND NETWORKING**

**3** Lecture Hours · **0** Lab Hours

Technological and managerial issues related to design, operation and maintenance of computer networks. Topics include communication architectures and protocols, LANs and WANs, ATM and frame relay, cellular and satellite communication, the World Wide Web, the Internet, and electronic commerce.

## **INSY5347 – PRINCIPLES OF INFORMATION SECURITY**

**3** Lecture Hours · **0** Lab Hours

Starting with an introduction to Information Security concepts, this course will address security terminology, history, management, technology and practice based on the Security Domains specified by ISC2. The course will address strategies and tools, managerial, technological, legal, ethical and operational issues related to Information Security. Topics in developing Security Blueprint, Incidence Response, Business Continuity planning and Disaster Recovery will be addressed. Prerequisite: INSY 5343

## **INSY5350 – HEALTH CARE INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Addresses issues in the development, integration, and management of health care information systems. Specifically, topics in financial information systems, patient care systems, and health care delivery applications will be discussed. Both case studies and real life applications will be studied. Prerequisite: Cohort HCAD Major

## **INSY5352 – TOPICS IN OBJECT TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Coverage of current topics in Object Technology to include the study of object-oriented agents, components, object request Brokers, distributed objects and related implementations of object-oriented software. Also includes the study of design patterns in object-oriented software design. Prerequisite: INSY 5309.

## **INSY5354 – ENTERPRISE APPLICATION DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course will address the architectures, methodologies, tools and techniques used in the development and deployment of enterprise-level information systems applications. The topics covered will include client/server applications, intranet/internet applications, distributed applications, enterprise-level objects and server-side components. Prerequisite: INSY 5341 and 5352.

## **INSY5357 – ENTERPRISE RESOURCE PLANNING**

**3** Lecture Hours · **0** Lab Hours

An introduction to enterprise resource planning (ERP), a business management paradigm that integrates all facets of the business, including planning, manufacturing, sales, finance and marketing. Course will cover both the methodology and practice of ERP using commercial software packages.

## **INSY5360 – COMPUTATIONAL TECHNIQUES FOR BUSINESS ANALYTICS**

**3** Lecture Hours · **0** Lab Hours

Computer software is the primary analytical tool for business analytics and modern research methods. Data analysts, statisticians, and researchers need technologies and skills using the computer as a tool for structuring and cleaning data sets, creating validation samples, conducting analyses, fitting models, simulating stochastic systems, model validation, and model presentation. Emphasis is placed on the use of data analytic software. Cross-listed with INSY 5360. Prerequisite: BSTAT 5325 or equivalent.

## **INSY5363 – INTELLIGENT INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Topics include expert systems, inductive learning, genetic algorithms, neural networks, simulated annealing, etc. Prerequisite: INSY 5309.

### **INSY5365 – COMPUTER FORENSICS AND INVESTIGATIONS**

**3** Lecture Hours · **0** Lab Hours

This course provides an introduction to acquiring and analyzing digital evidence for forensic purposes. The course will cover tools and techniques of forensics investigation of computer crimes. Topics covered include analysis file structures, data recovery, email and network analysis, digital investigations, expert witness testimony, and preserving evidence for law enforcement and legal proceedings. Prerequisite: INSY 5347.

### **INSY5370 – ENTERPRISE APPLICATION ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Enterprise applications typically display, manipulate and store large amounts of complex data and support business processes with that data. Enterprise applications have their own challenges and solutions that is different from desktop systems and embedded systems. This course addresses enterprise application architecture issues such as layering applications, structuring domain logic, specifying user interface, linking memory and relational database, handling session state and the principles of distribution. The course will also address solutions organized as software patterns and their use in application design. Prerequisite: INSY 5341.

### **INSY5373 – INFORMATION SYSTEMS PROJECT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the concepts and practices of project management and their importance to improving the success of information technology projects. Distinct aspects or characteristics of IT projects which cause these projects to behave differently in the corporate world than do other, non-technical, projects will be discussed.

### **INSY5375 – MANAGEMENT OF INFORMATION TECHNOLOGIES**

**3** Lecture Hours · **0** Lab Hours

This course covers topics on the management of information technologies (IT) from the view point of senior managers. Subjects discussed include the strategic role of IT to gain competitive advantage, Internet-based business models, building a lean and agile organization through IT, managing IT security and reliability, evolving models of IT service delivery, such as cloud computing and open source, management of outsourcing, IT governance, and ethical issues in the digital era. In addition to classroom lectures, the course relies heavily on case analysis and discussion to provide a real world perspective of issues related to IT management.

### **INSY5379 – ORGANIZATIONAL RESEARCH PROJECT**

**3** Lecture Hours · **0** Lab Hours

Students conduct a research project at a local organization, focusing on applications of information systems concepts studied in their coursework. Prerequisite: Cohort INSY Major.

### **INSY5382 – INDEPENDENT STUDIES IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of an information systems topic.

### **INSY5392 – SELECTED TOPICS IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in information systems. May be repeated when topics vary.

### **INSY5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F,R,P

### **INSY5399 – GRADUATE INFORMATION SYSTEMS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in information systems. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **INSY5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P.

### **INSY6182 – INDEPENDENT STUDY IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Doctoral level study of information systems topics. Prerequisite: Doctoral standing.

### **INSY6301 – SEMINAR IN RESEARCH FOUNDATIONS**

**3** Lecture Hours · **0** Lab Hours

Integrative analysis of research in information systems, including research philosophies and methodologies, contemporary research topics, dissertation research and future directions for information systems research. Prerequisite: Doctoral standing.

### **INSY6306 – SEMINAR IN INFORMATION TECHNOLOGIES**

**3** Lecture Hours · **0** Lab Hours

Focuses on contemporary technology issues in IS development and deployment. Prerequisite: Doctoral standing and INSY 6301.

### **INSY6307 – SEMINAR IN IS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on managerial and organizational issues in IS. Prerequisite: Doctoral standing and INSY 6301

### **INSY6392 – SELECTED TOPICS IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Advanced doctoral level topics in Information Systems. May be repeated when topics vary. Prerequisite: Doctoral standing.

## **MASI Courses**

### **MASI5182 – INDEPENDENT STUDIES IN MANAGEMENT SCIENCES**

**1** Lecture Hour · **0** Lab Hours

Extensive analysis of a management sciences topic.

### **MASI5199 – GRADUATE MANAGEMENT SCIENCES INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

Practical training in management science. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **MASI5282 – INDEPENDENT STUDIES IN MANAGEMENT SCIENCES**

**2** Lecture Hours · **0** Lab Hours

Extensive analysis of a management sciences topic.

### **MASI5299 – GRADUATE MANAGEMENT SCIENCES INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Practical training in management science. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **MASI5332 – ADVANCED DATA COLLECTION**

3 Lecture Hours · 0 Lab Hours

Surveys, audits, samples and experimental designs contrasted and compared as a basis for statistical inference. Emphasis is on the integration of techniques common to differing areas of business research. Prerequisite: STAT 5325.

### **MASI5382 – INDEPENDENT STUDIES IN MANAGEMENT SCIENCES**

3 Lecture Hours · 0 Lab Hours

Extensive analysis of a management sciences topic.

### **MASI5399 – GRADUATE MANAGEMENT SCIENCES INTERNSHIP**

3 Lecture Hours · 0 Lab Hours

Practical training in management science. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **MASI6309 – MULTIVARIATE STATISTICAL METHODS**

3 Lecture Hours · 0 Lab Hours

Focuses on methods of analyzing mean and covariance structures. Topics include commonly applied multivariate methods such as multiple analysis of variance, repeated measures, discriminant analysis, profile analysis, canonical correlations, and factor analytic methods. The use of matrix algebra and available computer packages will be stressed. Prerequisite: Doctoral standing and BSTAT 5325.

## **OPMA Courses**

### **OPMA5199 – GRADUATE OPERATIONS MANAGEMENT INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Practical training in operations management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **OPMA5299 – GRADUATE OPERATIONS MANAGEMENT INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Practical training in operations management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **OPMA5321 – INTRODUCTION TO MANAGEMENT SCIENCES**

3 Lecture Hours · 0 Lab Hours

Introduction to optimization and quantitative analysis of business problems. Topics include applications of linear and integer programming, network analysis, simulation, game theory, queuing theory, and other operations research tools.

### **OPMA5361 – OPERATIONS MANAGEMENT**

3 Lecture Hours · 0 Lab Hours

Introduction to concepts and problem-solving techniques important in production management and operations management. Topics include demand forecasting, capacity management, resource allocation, inventory management, supply chain management, quality control, and project management.

### **OPMA5363 – OPERATIONS PLANNING AND CONTROL**

**3** Lecture Hours · **0** Lab Hours

Course covers operations planning and control systems in manufacturing and service organizations. Topics include inventory control, material requirements planning, Just-In-Time and lean manufacturing, production scheduling, capacity planning, and operations planning and control software. Previous introductory course in operations management suggested.

### **OPMA5364 – PROJECT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course covers concepts and issues important in effectively managing projects. Topics include project selection, project planning, negotiation, budgeting, scheduling, resource allocation, project control, project auditing, and project termination.

### **OPMA5367 – QUALITY MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course focuses on quality of products and services needed by society. Topics include consideration of quality cost and improvements, designing for quality, process controls, inspections, testing, acceptance sampling, management controls, and quality information systems. Previous introductory course in statistics suggested.

### **OPMA5368 – GLOBAL SUPPLY CHAIN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course covers concepts and issues important in managing supply chains. A strategic view is taken of the way companies coordinate their operations with suppliers and customers in a global marketplace. The strategic use of information systems to better manage supply chains is also covered. Previous introductory course in operations management suggested.

### **OPMA5369 – LOGISTICS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course covers physical supply, in-plant movement and storage, and physical distribution of materials, which comprise logistics systems in industry. Topics include facility location, transportation, warehousing, inventory control, distribution networks, and logistics information systems. Previous introductory course in operations management suggested.

### **OPMA5377 – HEALTH CARE QUALITY ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Covers an integrated case study approach to organizational performance management resulting in the delivery of ever-improving value to patients, improved health care quality and organizational sustainability, improvement of overall organizational effectiveness as a health care provider, and organizational learning.

### **OPMA5379 – ORGANIZATIONAL RESEARCH PROJECT**

**3** Lecture Hours · **0** Lab Hours

Students conduct a research project at a local organization, focusing on applications of business concepts studied in their coursework. Prerequisite: Cohort MBA Major

### **OPMA5382 – INDEPENDENT STUDIES IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of an Operations Management topic.

### **OPMA5389 – INDEPENDENT STUDIES IN MILITARY ACQUISITION**

**3** Lecture Hours · **0** Lab Hours

This course is reserved for military officers in the Training with Industry or I-Grade programs at UT

Arlington. Studies consist of an acquisition practicum with training at an assigned agency and a required seminar at UT Arlington.

### **OPMA5392 – SELECTED TOPICS IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in operations management. May be repeated when topics vary.

### **OPMA5399 – GRADUATE OPERATIONS MANAGEMENT INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in operations management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **OPMA5689 – INDEPENDENT STUDIES IN MILITARY ACQUISITION**

**6** Lecture Hours · **0** Lab Hours

This course is reserved for military officers in the Training with Industry or I-GRAD programs at UT Arlington. Studies consist of an acquisition practicum with training at an assigned agency and a required seminar at UT Arlington.

### **OPMA5989 – INDEPENDENT STUDIES IN MILITARY ACQUISITION**

**9** Lecture Hours · **0** Lab Hours

This course is reserved for military officers in the Training with Industry or I-Grade programs at UT Arlington. Studies consist of an acquisition practicum with training at an assigned agency and a required seminar at UT Arlington.

### **OPMA6370 – SEMINAR IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Doctoral seminar that is a comprehensive and integrative study of operations management that focuses on theoretical frameworks, applications of models, and methods of analysis. Prerequisite: Doctoral standing.

### **OPMA6371 – INTEGRATED OPERATIONS STRATEGY AND RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Linkages between the manufacturing and strategy development functions. Research issues within production/operations management. Current techniques/designs for achieving effective research. Prerequisite: Doctoral standing and previous introductory course in operations management suggested.

### **OPMA6380 – RESEARCH IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of a faculty member. May be repeated for credit. Prerequisite: Doctoral standing.

### **OPMA6392 – SPECIAL TOPICS IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Advanced doctoral level topics in Operations Management. May be repeated when topics vary. Prerequisite: Doctoral standing.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Management

College of Business

### Chair Abdul Rasheed

Web [management.uta.edu](http://management.uta.edu)  
Phone 817.272.3166  
Fax 817.272.3122

---

### Degrees / Certificates

#### Master's Degrees

Human Resource Management, M.S.

#### Doctoral Degrees

Management (Business Administration), Ph.D.

---

### Graduate Faculty

#### Professor

[Myrtle Bell](#)  
[Deepak Datta](#)  
[David Gray](#)  
[Jim Quick](#)  
[Abdul Rasheed](#)

#### Associate Professor

[George Benson](#)  
[Wendy Casper](#)  
[Susanna Khavul](#)  
[James Lavelle](#)  
[Margaret Mcfadyen](#)  
[Jeffrey Mcgee](#)  
[Gary McMahan](#)  
[Liliana Nordtvedt](#)

#### Assistant Professor

[Marcus Butts](#)  
[Feirong Yuan](#)

#### Assistant Clinical Professor

[Janice Baldwin](#)  
[Beverly George](#)  
[Jeanne Michalski](#)  
[Terrance Wilensky](#)

#### Lecturer

[Dennis Veit](#)

---

## Graduate Advisors

### Wendy Casper

*Management (Business Administration), Ph.D.*

### Gregory Frazier

*Management (Business Administration), Ph.D.*

### Chandra Subramaniam

*Human Resource Management, M.S.*

*Human Resource Management, Non-Degree Seeking*

### Dennis Veit

*Human Resource Management, M.S.*

---

## Department Information

### Courses

# Department Information

### Objective

### Accreditation

### Admission and Degree Requirements

- [Proposed Admissions Changes Effective August 2014 >>](#)
- [Unconditional Admission](#)
- [Probationary Admission](#)
- [Provisional, Deferred and Denied Admission](#)
- [Curriculum](#)
- [Waivers and Transfer Credit](#)

## Objective

The basic purpose of the Master of Science degree in Human Resource Management is to provide students with both a general knowledge of business and a specialized knowledge in human resource management. Students are exposed to the theory, research and practical applications of numerous content areas, including human resource strategy and policy, human resource planning, human resource information systems, career planning and development, employee relations law, organization change and development, employee selection, compensation, training and development and employee diversity in organizations. The program is designed to prepare students for human resource management careers in business and industrial firms, as well as government and nonprofit organizations.

## Accreditation

The Master of Science in Human Resource Management is accredited by the AACSB-International (Association to Advance Collegiate Schools of Business-International).

The Master of Science in Human Resource Management curriculum is also accredited by SHRM National Association to meet their guidelines.



All classes of our Master of Science in Human Resources Management curriculum have been certified to meet the guidelines for the HRCI re-accreditation.

## Admission and Degree Requirements

Admission to the MSHR program is based upon the completion of the general admission requirements of the Graduate School. For admission into the MSHR program an acceptable score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and acceptable academic undergraduate performance are required. The GMAT is strongly preferred.

Students for whom English is not their native language must also take the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework.

A standardized test score (GMAT or GRE) will not be used as the sole criterion or the primary criterion for determining an applicant's admission to the MSHR program. Specifically, multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to deny admission is not based on any single criterion.

Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.25 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GPA by 200 and adds the resulting value to the GMAT Score. An index score greater than 1080 is typical of a successful candidate.
2. GMAT sub scores (verbal and quantitative) are also considered in the admission decision. A GMAT total score greater than 480 is typical of a successful candidate.
3. A GRE quantitative percentile greater than 40% and Verbal percentile greater than 40% is typical of a successful applicant.
4. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
5. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
6. Educational objectives and quality of written expression of the 200 word application essay.
7. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

### Unconditional Admission

For unconditional admission, the applicant's composite total from the index must be 1080 or higher

and items 1 through 5 above should strongly indicate potential for successful academic performance as a graduate HR student.

Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.00 as calculated by the Graduate School (or 3.00 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### Probationary Admission

For an applicant with an index score below 1080, probationary admission may be available when at least three items of 1 through 5 above strongly indicate potential for successful academic performance as a graduate HR student. Items 6 through 10 will also be used to identify positive indicators for admission. Students who are admitted on probation will have one or more conditions specified, such as no grade less than "B" for the first 12 hours of graduate study.

### Provisional, Deferred and Denied Admission

A provisional decision to admit may be granted when the applicant meets criteria for unconditional or probationary status but one or more applicant credentials are incomplete. A deferred decision may be made when an applicant's file is not sufficiently complete to make an admit or deny decision.

For an applicant with an index score less than 1040 and other evidence indicating lack of potential for academic success as a graduate HR student, admission will likely be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

### Curriculum

The program is designed primarily for the student who has a bachelor's degree in business administration. A minimum of 30 semester hours is required if the student chooses to write a thesis. If the student chooses not to write a thesis, a minimum of 36 semester hours is required. Students who do not have bachelor's degrees in business administration may have to take additional coursework (up to 18 semester hours) to acquire sufficient general business knowledge for effective performance as a human resource executive.

Coursework for the program includes six hours of required work in research and statistical methods, 15 hours of required work in human resources and policy, and thesis or elective hours in related management courses to complete the 30- or 36-hour requirements. For the students who choose to write a thesis, the six hours of thesis will involve working closely with one or more members of the graduate faculty from the Department of Management on a research project in a specialized area of interest in human resource management.

The curriculum is as follows:

1. Core Courses (18 semester hours)
  - ACCT 5301 Financial Accounting
  - ECON 5311 Economic Analysis II
  - OPMA 5361 Operations Management
  - MARK 5311 Marketing
  - FINA 5311 Business Finance
  - MANA 5312 Management
2. Advanced Courses (27 semester hours, thesis and non-thesis)
  - a. Required human resource and policy courses (18 semester hours)
    - MANA 5340 Strategic Human Resource Management
    - MANA 5341 Staffing and Performance Management
    - MANA 5322 Compensation and Benefits

- MANA 5323 Training and Development
  - MANA 5327 Human Resource Law
  - MANA 5336 Strategic Management
  - MANA 5334 Organizational Consulting
- b. Required research courses (six semester hours)
- BSTAT 5325 (Advanced Statistics)
- c. MANA 5329 Methods of Organizational Research (Prerequisite BSTAT 5325)
3. Thesis (MANA 5698) and three elective semester hours. "The thesis student must be enrolled in six hours of thesis. Once the student is enrolled in the thesis course, continuous enrollment is expected. The student must be enrolled in six hours of thesis during the semester in which the thesis is defended and the final Master's Examination is unconditionally passes. The degree candidate must defend the thesis in a final oral examination open to all members of the Faculty."
4. Non-thesis option requires 9 elective semester hours.

### Waivers and Transfer Credit

There are three types of required courses: deficiency, core and advanced. Programs of work will normally vary in length from 36 to 45 hours (plus deficiency courses), depending upon waivers granted. The first three waivers of core courses will be used to expand the number of electives in the advanced program rather than shorten the overall program. Additional waivers of core courses may reduce the program to a minimum of 36 hours. Applicants may have both deficiency and core courses waived without the requirement for a substitute course if they have completed, during the last 10 years, a similar course at a recognized college or university and received a "B" or better grade.\* Extensions to this 10 year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience. Additionally, a maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by program advisor. Transfer of graduate classes from other universities will be considered on a case by case basis.

\* Note: The University of Texas at Austin offer Business Foundations Programs (BFP) for non-business majors that provide solid foundations in basic business concepts. BFP courses and courses from equivalent programs for non-business majors at other colleges/universities may not be used for course waiver credit.

## MANA Courses

### MANA5182 – INDEPENDENT STUDIES IN MANAGEMENT

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a management topic.

### MANA5199 – GRADUATE MANAGEMENT INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### MANA5299 – GRADUATE MANAGEMENT INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **MANA5312 – MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Basic exploration of organizations in their environments. The elementary tools of management, which include: organizational objectives, social responsibility and ethics, policies, plans, and decision making; the design of organizations and jobs; the production and technology aspects of organization; the elements of leadership, behavior, and communication; and the elements of control and performance evaluation.

### **MANA5320 – ORGANIZATIONAL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Systematic study of behavioral problems in the complex organization. Analyzes the interaction of environmental and internal factors and their effects upon organizational behavior. The course is placed within the context of the organization process. Prerequisite: MANA 5312.

### **MANA5321 – COMPLEX ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

Provides the foundation for an in-depth knowledge of several important theories of management and organization. Attention to study of organizations, organizational effectiveness, comparative analysis of organizations, and the organization and its environment. Relates empirical findings and theoretical hypotheses with applied management concepts. Prerequisite: MANA 5312.

### **MANA5322 – COMPENSATION & REWARD SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Management of compensation systems in business and other organizations; concepts models and practices related to wage and salary levels and structures; perceived equitable pay; individual performance appraisal, rewards and satisfaction; benefits and employee services.

### **MANA5323 – TRAINING AND DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Examines the components of training systems. Topics include assessing training needs and establishing objectives, developing training programs, selecting appropriate training techniques, and evaluating training outcomes.

### **MANA5324 – TEAM AND GROUP BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

A study in team and group dynamics, critical processes and practices. Topics include team composition and development, problem solving strategies and performance, conflict management, leadership process and work team strategies.

### **MANA5325 – LABOR & EMPLOYEE RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Examines union-management relations and considers the structure and functioning of the economic and social forces of importance at the policy level within both the firm and the union. Also considers non-union employee relationships.

### **MANA5326 – ORGANIZATION DEVELOPMENT AND CHANGE**

**3** Lecture Hours · **0** Lab Hours

This graduate seminar is taught as a field research practicum in which students use the organizational diagnosis model of Harry Levinson to develop information about the functioning of an organizational system. Recommendations for interventions and change at the individual, group, and organizational levels are considered in interaction with business leaders. Client organizations have included Chaparral Steel Company, AT&T, American Airlines, SiemensDematic, and EDS. Qualitative interview and quantitative questionnaire data collection and feedback methods are emphasized along with archival and observational data.

### **MANA5327 – HUMAN RESOURCE LAW**

**3** Lecture Hours · **0** Lab Hours

Coverage of statutory and case law in the employment setting. Emphasis placed on employment discrimination, compensation and benefits law; government agencies which administer and enforce employment laws are also reviewed. Prerequisite: MANA 5340.

### **MANA5329 – METHODS OF ORGANIZATIONAL RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research design, data collection, and hypothesis testing applied to human resource management. The class focuses on basic statistics, quantitative decision-making, and data presentation skills using Human Resource metrics and analytics examples.

### **MANA5330 – NEGOTIATIONS & CONFLICT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on developing students negotiating skills in a variety of contexts. Throughout the course students will diagnose negotiation situations, strategize and plan for negotiations, and learn how to engage in more effective negotiations. The course also focuses on developing interpersonal conflict resolution skills and strategies.

### **MANA5331 – MANAGEMENT OF MULTINATIONAL ENTERPRISES**

**3** Lecture Hours · **0** Lab Hours

Focuses on the international dimensions of strategy and organization and provides a framework for formulating strategies in an increasingly complex global economy. The course seeks to provide students with an understanding of the cultural, political, competitive, technological, legal, and demographic environments in which multinational firms operate. It then examines the nature of global competition by exploring the characteristics of global industries and strategies that have been successful in an international context. Also covered are issues related to organizational design and strategic control in the management of multinational enterprises.

### **MANA5332 – MANAGING DIVERSITY IN ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

Examines implications of employee diversity in organizations, including human resource and organizational behavior issues related to aspects of diversity. Includes study of the changing demographics of workers, effects of diversity on organizational performance, and ways of effectively managing in organizations having applicants, employees, and customers from diverse backgrounds. Research on diversity issues is examined, as are process of stereotyping and myths and misperceptions about diversity issues. Legislation related to diversity is also reviewed.

### **MANA5333 – INNOVATION AND SUSTAINABILITY MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Innovation and Sustainability motivates students to understand how entrepreneurs in start-up and corporate environments identify, assess, and commercialize innovations with sustainability in mind. Using case studies, experiential exercises, and field research, students will consider how innovations across a broad range of emerging technologies will meet the market, financial, and environmental demands of a diverse set of current and future stakeholders. Students will have an opportunity to put learning into practice by analyzing their own innovations or an innovations arising from either university research, an existing company, or a current employer.

### **MANA5334 – ORGANIZATION CONSULTING & RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Explores internal and external consulting to business organizations. Emphasis on the management of the change process through the stages of data gathering, diagnosis, analysis, and recommendation.

### **MANA5336 – STRATEGIC MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Strategic management uses a general management perspective in addressing issues related to the formulation and implementation of corporate and business level strategy. The course involves developing the ability to identify issues, evaluate strategic options and understand the organizational process by which strategies get formed and executed. It builds on the knowledge gained in functional area courses and uses case studies and projects to improve students' analytical and decision-making skills. Prerequisite: Must be taken in last semester or with permission of the Graduate Advisor.

### **MANA5337 – ETHICS AND THE BUSINESS ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Uses a strategic perspective to examine ethics, government and the world economy, and how they may affect relationships between business organizations and other institutions of our society. Particular attention is paid to issues such as leadership, technology, and internationalization concordant with the breadth requirements of the UTA MBA plus public policy concerns involving the natural environment, gender and minority issues. Course activities will include class discussion and analysis of societal dilemmas, contemporary cases and current news stories.

### **MANA5338 – CAREERS & MANAGING IN A CHANGING ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Presents practical and theoretical perspectives on careers and managing in a changing work environment. Includes self assessment, career plan development, informational interviews, readings and exercises designed to lead to a better understanding of managing self and others.

### **MANA5339 – ENTREPRENEURSHIP**

**3** Lecture Hours · **0** Lab Hours

New venture opportunity assessment, formation, and development in startup and corporate environments. Students will understand the role of entrepreneurship in the economy and the attributes of entrepreneurial behavior. Students will learn how to assess the market and financial feasibility of a new venture as well as understand how to use equity and debt financing, how to select between starting up, franchising, or buying a business, how to lead the growing company, and how to address family business dilemmas. The cornerstone of the course will be a feasibility assessment project that leads to a business plan for a new venture of the student's choice. For the project, students can explore either an original new venture idea, an already existing venture concept (for example, a franchise), or a new business opportunity in need of assessment for an existing firm or their current employer.

### **MANA5340 – STRATEGIC HUMAN RESOURCE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Emphasizes strategic perspective of modern human resource management theory and practice. Topics include human resource planning, staffing, training and development, compensation, performance appraisal, and labor and employee relations.

### **MANA5341 – STAFFING AND PERFORMANCE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course covers employee recruitment, selection and performance appraisal. Topics include: recruitment strategies and methods, methods of employee selection, performance planning, development and validation of appraisal instruments, implementation and conduct of performance appraisal, and performance feedback and counseling.

### **MANA5342 – PREVENTIVE STRESS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examines the organizational demands that cause stress. Identifies the psychophysiology of the stress response and the individual/ organizational costs of distress. Emphasis is placed on the principles and methods of preventive stress management, such as social support, exercise, and the relaxation response.

### **MANA5350 – EFFECTIVE LEADERSHIP**

**3** Lecture Hours · **0** Lab Hours



This graduate course uses self-assessment testing with feedback, case studies, selected readings, and guest lectures from successful leaders and top executive coaches to create a learning laboratory for mature and motivated graduate students of leadership.

### **MANA5382 – INDEPENDENT STUDIES IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA5392 – SELECTED TOPICS IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in management. May be repeated when topics vary.

### **MANA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Thesis 5398 graded R (Research) or F only. Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **MANA5399 – INTERNSHIP 5399 GRADUATE LEVEL**

**16** Lecture Hours · **0** Lab Hours

Internship for Master's level course

### **MANA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **MANA6182 – INDEPENDENT STUDIES IN MANAGEMENT**

**1** Lecture Hour · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA6282 – INDEPENDENT STUDIES IN MANAGEMENT**

**2** Lecture Hours · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA6318 – SEMINAR IN ORGANIZATIONAL THEORY**

**3** Lecture Hours · **0** Lab Hours

Advanced study in the theory and research of organizations.

### **MANA6328 – SEMINAR IN BUSINESS POLICY**

**3** Lecture Hours · **0** Lab Hours

Advanced study in the theory and research bases of business policy and strategic management.

### **MANA6329 – ADVANCED RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

In-depth coverage of selected topics in the design of research and analysis of data; topics include philosophy of science, theory of measurement, complex experimental and quasi-experimental designs.

### **MANA6338 – SEMINAR IN ORGANIZATIONAL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Advanced study in the theory and research of organizational behavior.

### **MANA6348 – SEMINAR IN PERSONNEL/HUMAN RESOURCE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Advanced study in employee selection, performance appraisal, compensation, training and development, human resource policy and strategy, and other areas of human resource management.

### **MANA6382 – INDEPENDENT STUDIES IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA6390 – ADVANCED TOPICS IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in management. May be repeated when topics vary.

### **MANA6392 – RESEARCH IN ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Independent research under supervision of a faculty member.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[Accounting](#)

[Business Administration](#)

[Economics](#)

[Finance and Real Estate](#)

[Health Care Administration](#)

[Information Systems & Operations Management](#)

[Management](#)

[Marketing](#)

[College of Education and Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public Affairs](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Marketing

College of Business

### Chair J Fernando Jaramillo

Web [www2.uta.edu/marketing/](http://www2.uta.edu/marketing/)

Phone 817.272.2876

Fax 817.272.2854

[234 Business Building](#)

---

### Degrees / Certificates

#### Master's Degrees

Marketing Research, M.S.

#### Doctoral Degrees

Marketing (Business Administration), Ph.D.

---

### Graduate Faculty

**Assistant Professor and Graduate Advisor of Marketing Department Ph.D. Program**

[Ritesh Saini](#)

#### Professor

[Lawrence Chonko](#)

[Xueming Luo](#)

#### Associate Professor

[Elten Briggs](#)

[Traci Freling](#)

[Douglas Grisaffe](#)

#### Assistant Professor

[Narayanan Janakiraman](#)

[J Fernando Jaramillo](#)

[Adwait Khare](#)

[Zhiyong Yang](#)

#### Clinical Professor

[Robert Rogers](#)

#### Associate Clinical Professor

[Gary Lacefield](#)

#### Assistant Clinical Professor

[Michael Richarme](#)

---

### Graduate Advisors

**Gregory Frazier**

*Marketing (Business Administration), Ph.D.*

**Robert Rogers**

*Marketing Research, M.S.*

**Ritesh Saini**

*Marketing (Business Administration), Ph.D.  
Marketing Research, M.S.*

**Chandra Subramaniam**

*Marketing Research, M.S.  
Marketing Research, Non-Degree Seeking*

---

**Department Information**

**Courses**

## Department Information

**Objective: M.S. Program**

**Accreditation**

**Admissions**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional and Deferred Admission**
- **Admission Denial**

**Assistantships**

- **Scholarships**

**Degree Requirements**

**Marketing Research Internship**

### Objective: M.S. Program

The objective of the Master of Science in Marketing Research is to prepare students for successful careers in marketing research, marketing planning, product or brand management, and related fields. The program is project oriented; many of the required advanced courses conduct client projects as a part of the course requirements. The projects are team-based; class members work in teams to accomplish project objectives.

### Accreditation

The Master of Science in Marketing Research degree is accredited by the AACSB International - The Association to Advance Collegiate Schools of Business.

### Admissions

Admission to the Master of Science in Marketing Research program is based on completion of the

general admission requirements of the Graduate School. For MSMR program admission a score on the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) and the official record of undergraduate (and post-graduate, if applicable) are required. The GMAT is preferred.

Applicants for whom English is not their native language must also present official results of the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). The MSMR program's objective is to have all applicants qualified to be either Graduate Teaching Assistants (GTA) or Graduate Research Assistants. (GRA).

A standardized test score (GMAT or GRE) will not be used as the sole criterion for determining an applicant's admission to the MSMR program. The admission decision is made based on the totality of information listed below:

1. An undergraduate grade point average (GPA) greater than 3.25 on a 4-point scale (as calculated by the Graduate School) is indicative of an applicant who is likely to be successful in the program. The GPA calculated by the Graduate School is based on the last 60 hours of the undergraduate program. A graduate GPA is used when it is 3.0 or above and based on at least 24 hours.
2. Either the GMAT or the GRE will be considered for the admission decision. On both the GMAT and GRE, both quantitative and verbal component percentiles above the 50th percentile are indicative of an applicant who can be successful in the program. A GMAT combined score of 580 or above is indicative of an applicant who is likely to be successful in the program. There is no commonly accepted conversion from GRE to GMAT for combined scores. The algorithm provided by the Educational Testing Service (ETS) is used to estimate the likely GMAT combined score for student who have submitted GRE score to be considered for admission. The midpoint of the confidence interval is assumed to be an estimator for a likely GMAT combined score. The results from 1 and 2 above are combined to create an index. The index is created by multiplying the GPA by 200 and adding the GMAT combined score (or the estimate based on GRE scores.) An index score of 1200 or greater is indicative of an applicant who is likely to be successful in the program.
3. International applicants must submit official scores of measures designed to demonstrate English language proficiency. English language proficiency is indicative of an applicant who is likely to be successful in the program. The MSMR program's objective is to have all students qualified to be able to perform as Graduate Teaching Assistants and/or Graduate Research Assistants. The MSMR program requires a minimum of 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with section scores of at least 22 for the writing section, 23 for the speaking section, 20 for the reading section, and 16 for the listening section. International students who do not meet program requirements may be asked to provide additional information to demonstrate English language proficiency.
4. Grades in specific undergraduate business and non-business courses (math, accounting, economics, statistics, for example).
5. Educational objectives and passion for marketing research, as well as quality of written expression of the 200 word application essay or the personal statement.
6. Letters of recommendation from three persons familiar with the applicant's work ethic as evidenced in academic background or work experience.
7. A personal interview in person or by telephone.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

### Unconditional Admission

To be considered for Unconditional Admission, the applicant's index score should be 1200 or

higher, and items 3 through 10 above should be indicative of strong potential to be successful in this program.

### **Probationary Admission**

For an applicant with an index score below 1200, probationary admission may be available when items of 1 through 10 above strongly indicate potential for successful academic performance as an MSMR student. When GMAT Verbal or Quantitative percentiles are below the 50th percentile, probationary admission may be available. For applicants submitting the GRE as part of the application for admission, when GRE verbal or Quantitative percentiles are below the 50th percentile, probationary admission may be available. Students admitted on probationary status for low verbal or quantitative percentiles must satisfactorily complete one or more English and/or math courses in the first two semesters as specified by the Graduate Advisor. Students who are admitted on probation must meet the conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study and any required undergraduate course.

### **Provisional Admission**

A provisional decision to admit an applicant may be granted when the applicant meets the criteria for unconditional or probationary admission but one or more applicant credentials are missing from the applicant file.

### **Admission Denial**

If an applicant's record does not provide sufficient evidence of likelihood of being successful in the program following careful review of all available information, admission will be denied.

## **Assistantships**

Graduate Teaching Assistantships may be offered to students who have been accepted in the program. The Marketing Department will request and evaluate the applications and make the selection of applicants for the positions based on departmental needs and university requirements. Graduate Research Assistantships may be offered on an as needed basis. When GRA positions are available, the Marketing faculty involved in the project will solicit applications from students who have been admitted to the program. The applicants will be evaluated by the appropriate faculty.

## **Scholarships**

Students who have been accepted into the program are encouraged to pursue scholarship opportunities within the College of Business and the university.

Scholarship funds from the member firms of the MSMR Advisory Board and the MSMR Alumni Association may be available to support students who have been accepted into the program and are enrolled full-time and in good standing with the University.

Students are advised that scholarship opportunities are available. A faculty committee and, if appropriate, MSMR alumni select recipients based on a rank ordering of eligible students.

## **Degree Requirements**

The program is designed primarily for students who have earned a Bachelor of Business Administration (BBA or equivalent). For those students, the program consists of the 36 semester hours of Advanced Courses.

Students with degrees other than BBA are required to take up to 21 Hours of Foundation courses required by the College of Business. Foundation courses may be waived if equivalent coursework has been completed with a grade of B or better within the previous 5 years.

Students are encouraged to complete deficiency requirements prior to admission or at the beginning of their studies. College courses in business math (including probability and set theory, linear equations, matrix algebra, compound interest, annuities, and differential and integral calculus), business statistics, and computers (including general topics, spreadsheets and word processing and electronic communications) may be taken prior to entry into the program.

1. Foundation Courses (21 semester hours)

- ACCT 5301 Accounting Analysis I (Financial Accounting)
- ACCT 5302 Accounting Analysis II (Managerial Accounting)
- ECON 5311 Economic Analysis II (Micro & Macro)
- MARK 5311 Marketing
- MANA 5312 Management
- FINA 5311 Business Financial Management
- BSTAT 5325 Advanced Statistical Methods

2. Advanced Courses (36 semester hours)

- MARK 5320 Buyer Behavior
- MARK 5327 Research for Marketing Decisions
- MARK 5328 Product Management
- MARK 5337 Marketing Information Management
- MARK 5338 Qualitative Research
- MARK 5340 Marketing Strategy
- MARK 5342 Advanced Topics in Marketing Research
- MARK 5343 Advanced Research Analysis I
- MARK 5344 Advanced Research Analysis II
- MARK 5382 Independent Studies in Marketing
- MARK 5396 Marketing Research Internship I
- MARK 5397 Marketing Research Internship II

## Marketing Research Internship

The Marketing Research Internships (MARK 5396 and MARK 5397) represent an integrative component of the MSMR program. MSMR students are responsible for developing the relationships necessary to secure an internship offer. The internship opportunities developed by the students require approval by the Marketing Department.

The internships each consist of a minimum of 240 hours (12 weeks half-time); the typical internship parallels the start and end of a semester (spring, summer and fall) but internship opportunities may require a more lengthy commitment on the part of the student.

The MSMR intern must be working on marketing research projects; they must have some managerial input into the project; and they must be supervised by someone with a background in marketing research.

## BCOM Courses

### BCOM5375 – ADVANCED BUSINESS COMMUNICATION THEORY & PRACTICE

3 Lecture Hours · 0 Lab Hours

Examines theory of effective oral and written communication. Discusses techniques for improved research, report writing and presentation. Also stresses presentation media and computer graphics for reports and presentations.

## MARK Courses

### MARK5142 – ADVANCED TOPICS IN MARKETING RESEARCH

1 Lecture Hour · 0 Lab Hours

Presentation and analysis of cutting edge topics in marketing research.

### MARK5182 – INDEPENDENT STUDIES IN MARKETING

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a marketing topic.

### MARK5199 – GRADUATE MARKETING INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in marketing. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### MARK5282 – INDEPENDENT STUDIES IN MARKETING

2 Lecture Hours · 0 Lab Hours

Extensive analysis of a marketing topic.

### MARK5299 – GRADUATE MARKETING INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in marketing. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### MARK5311 – MARKETING

3 Lecture Hours · 0 Lab Hours

Survey of activities involved in marketing. Emphasis is on developing a managerial point of view in planning and evaluating marketing decisions of the firm. Analyzes decisions with respect to products, price, channel, and promotional variables and considers questions relating to cost efficiency, demand, social responsibility and regulations.

### MARK5320 – BUYER BEHAVIOR

3 Lecture Hours · 0 Lab Hours

Marketing begins and ends with the customer. This course introduces students to the study of consumer behavior. It is taught from the perspective of a marketing consultant who requires knowledge of consumer behavior in order to create, implement, and evaluate effective marketing strategies for clients. The course examines many concepts and theories from the behavioral sciences and analyzes their value in crafting marketing strategies. The course combines lecture and discussion of research based literature, both of which are aimed at providing an in-depth understanding of customer marketplace behavior with a focus on application to consumption and marketing decision making situations. Prerequisite: MARK 5311.

### MARK5326 – INTEGRATED MARKETING COMMUNICATION

3 Lecture Hours · 0 Lab Hours

A managerial approach to coordinating all promotional activities, including direct marketing, advertising, sales promotion, personal selling, public relations, publicity and packaging to produce a unified market-focused message. Message development, placement and timing are examined within the context of the role each type of promotion plays in marketing strategy development. Additional topics examined include media definition and analysis, the communication process, legal and ethical considerations, and budgeting. Prerequisite: MARK 5311.

### **MARK5327 – RESEARCH FOR MARKETING DECISIONS**

**3** Lecture Hours · **0** Lab Hours

Overview of information needs of the marketing decision-maker. Emphasis on methods and techniques that may be employed for the collection and analysis of primary data. Major topics include design of research projects, generating primary data, questionnaire design, samplings for survey research, experimental design, controlling data collection, and data analysis. Prerequisites: MARK 5311 and STAT 5301.

### **MARK5328 – PRODUCT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Management of the firm's product or service offerings. Topics include new product development, new product screening, evaluation of existing products, product line and mix analysis, product abandonment decisions, the brand manager's role, the new product planning department, and others. Emphasis on the development of meaningful criteria for decision-making in the product area and on the development of information systems to suggest, screen, and monitor products. Prerequisite: MARK 5327.

### **MARK5329 – SALES AND SALES MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examines the skills required for successful personal selling and sales management in today's world, with emphasis on industrial markets. Discusses the links between business trends and the resulting need for new approaches to the sales management challenges of planning, implementing, and evaluating a sales program. Special topics include the strategic importance of the sales force, customer/supplier partnering, multi-function collaboration, technology's role in altering traditional customer-access channels, the organization of the sales function for profitability vs. revenue, and the development of effective major account strategies.

### **MARK5330 – SERVICES MARKETING MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examines conceptual frameworks and management practices particularly relevant to organizations in service industries, including health care, education, financial services, retailing, non-profit organizations, and others in which the core product is a service instead of a good. The course examines many concepts and theories from the service marketing industry and analyzes their value in crafting marketing strategies. Emphasis is on problem solving unique to these types of organizations. Prerequisite: MARK 5311.

### **MARK5331 – INTERNATIONAL MARKETING**

**3** Lecture Hours · **0** Lab Hours

Management of marketing in international business. Includes marketing research, pricing, promotion, and distribution in the international environment. Examines marketing problems arising from various degrees of foreign involvement (exports, licensing, foreign subsidiaries). Prerequisite: MARK 5311.

### **MARK5332 – BUSINESS-TO-BUSINESS MARKETING**

**3** Lecture Hours · **0** Lab Hours

Marketing strategies for businesses targeting other businesses. Included are frameworks for analysis of marketing opportunities. Business-to-business e-commerce is examined. Prerequisite: MARK 5311.

### **MARK5334 – STRATEGIC INTERNET MARKETING**

**3** Lecture Hours · **0** Lab Hours

Through theoretical investigation, brainstorming, and case analysis, students develop the skills and strategies that are necessary for effective marketing via electronic media. With particular emphasis on Internet-based media, topics include developing an online corporate identity, online market research, interactive and database Web site strategies, creating and maintaining Web site content, proactive marketing tactics, analysis of Web site statistics, measuring online marketing results, and development of a strategic Internet marketing plan. Prerequisite: MARK 5311.



### **MARK5335 – RETAILING, FRANCHISING, AND ENTREPRENEURSHIP**

**3** Lecture Hours · **0** Lab Hours

Course offers exposure to elements of retail management, franchising, and entrepreneurship, including planning, promotion, pricing, and merchandising. Prerequisite: MARK 5311.

### **MARK5337 – MARKETING INFORMATION MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course focuses on various types of marketing data bases and computer-based research systems designed for the collection, storage, usage, and reporting of disaggregated data. Topics include single-source data, geodemographics, and micro-merchandising systems. Case studies and data analysis projects are utilized. Prerequisite: MARK 5327.

### **MARK5338 – QUALITATIVE RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Examines the nature of qualitative research and its growing value to the marketing research community. The role of focus group interviewing, types of focus groups and their conduct are extensively explored. Other topics include depth interviewing, projective techniques, observational research, the delphi method, environmental forecasting and futuring. Prerequisite: MARK 5327.

### **MARK5340 – MARKETING STRATEGY**

**3** Lecture Hours · **0** Lab Hours

A case course designed to give the student an opportunity to utilize the managerial and analytical tools that he or she has acquired. Uses case studies which require a realistic diagnosis of company problems, development of alternative courses of action, and the formulation of specific recommendations. Prerequisite: MARK 5311 and six hours of advanced marketing coursework.

### **MARK5342 – ADVANCED TOPICS IN MARKETING RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Presentation and analysis of cutting edge topics in marketing research. Prerequisite: consent of Program Director.

### **MARK5343 – ADVANCED RESEARCH ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Focuses on problems of data analysis in marketing research. Introduces the concept of multivariate data and emphasizes application of core statistical techniques including factor analysis, multiple regression, discriminant analysis and logistic regression. Also covered are cluster analysis and ratings based conjoint analysis. Application of statistical software is stressed including interpretation of statistical output. Prerequisite MARK 5327 or equivalent.

### **MARK5344 – ADVANCED RESEARCH ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

Advanced Research Analysis II - Continues from 5343 on problems of data analysis in marketing research. Advanced multivariate applications include MANOVA (Multivariate analysis of variance), multidimensional scaling and correspondence analysis, choice based conjoint studies, confirmatory factor analysis, and structural equations modeling. Application of appropriate statistical software is emphasized including the interpretation of statistical outputs. Prerequisite: MARK 5343.

### **MARK5382 – INDEPENDENT STUDIES IN MARKETING**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a marketing topic.

### **MARK5396 – MARKETING RESEARCH INTERNSHIP I**

**3** Lecture Hours · **0** Lab Hours



The internship involves part-time or full-time training and work experience in a company approved by the MSMR program advisor.

### **MARK5397 – MARKETING RESEARCH INTERNSHIP II**

**3** Lecture Hours · **0** Lab Hours

This is a continuation of Internship I and involves part-time or full-time work experience in a company approved by the MSMR program advisor. The student will be assigned primary responsibility for at least one marketing research project during Internship I or II. At the completion of the course, the student will present a research paper to the MSMR faculty.

### **MARK5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **MARK5399 – GRADUATE MARKETING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in marketing. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **MARK5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **MARK6302 – CONSUMER BEHAVIOR I**

**3** Lecture Hours · **0** Lab Hours

Study of current thought and research underlying individual and group marketplace behavior. Theories from the behavioral sciences are applied to consumer behavior from descriptive, predictive and normative perspectives. Topics include consumer knowledge, attitude theory, persuasion, affect, and social influence. The course draws from the literature in marketing, psychology, and behavioral economics. The course will enable students to conceptualize, operationalize, and develop research ideas.

### **MARK6303 – CONSUMER BEHAVIOR II**

**3** Lecture Hours · **0** Lab Hours

This course complements the Consumer Behavior I doctoral seminar. Building on a portion of that seminar, the course focuses on a few topics (e.g. automaticity in consumer behavior, consumer choice processes) that have the following characteristics: 1) the topics are the subjects of emerging research in consumer behavior, 2) students can gain an in-depth understanding of the theoretical underpinnings of these topics, and 3) the materials are such that students can develop innovative research projects on marketing and consumer behavior related to the topics covered in the class. Prerequisite MARK 6302.

### **MARK6305 – MARKETING MODELS I**

**3** Lecture Hours · **0** Lab Hours

Study of basic models of market and consumer behavior with particular attention to the use of classical statistical methods such as ordinary and generalized least squares, factor analysis, discriminant analysis and correspondence analysis, cluster analysis, and canonical correlation. Applications include perceptual mapping, multiattribute modeling, conjoint analysis, and product planning models. Prerequisite: STAT 5325.

### **MARK6310 – MARKETING STRATEGY AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examination of the latest research and thought in marketing and business strategy. Topics include marketing programming; product, price, promotion, and distribution decisions, marketing audits, and the

design, implementation and evaluation of marketing strategies and tactics. An objective of the course is the development of innovative research ideas on marketing strategy related to the topics covered in the class.

## **MARK6311 – MARKETING STRATEGY AND MANAGEMENT II**

**3** Lecture Hours · **0** Lab Hours

In increasingly global and competitive markets, sustainable competitive advantage takes on increasing importance. Further, in many industries, product differentiation no longer provides a decisive edge over competition. This course complements the Marketing Strategy and Management I doctoral seminar. Building on a portion of that seminar, the course focuses on a few topics ( e.g. transformation of a product-centric organization to a customer centric organization, organizational change, organizational agility, and technology-enabled relationship management) that will allow students to examine areas of emerging research in marketing strategy, gain an in-depth understanding of the theoretical underpinnings of the selected topics, and develop innovative research projects on marketing strategy related to the topics covered in the class. Prerequisite MARK 6310.

## **MARK6327 – ADVANCED MARKETING RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Major topics include design of research projects, generating primary data, questionnaire design, sampling for survey research, experimental design, controlling data collection, and data analysis. Coverage of scientific techniques for collecting and analyzing data; includes research paradigms, measurement, and design. Emphasis on theory and application of survey research including classical test theory, item response theory, sampling, questionnaire construction, validity and reliability assessment and data reduction.

## **MARK6331 – ADVANCED GLOBAL MARKETING THEORY**

**3** Lecture Hours · **0** Lab Hours

Examines the antecedents and consequences of global marketing. Includes the politics of global marketing, emerging global strategies, the latest concepts of market entry and development, and global marketing performance and evaluation.

## **MARK6390 – TOPICS IN MARKETING**

**3** Lecture Hours · **0** Lab Hours

Advanced doctoral level work in special topics in marketing. May be repeated when topics vary.

## **MARK6392 – INDEPENDENT STUDY IN MARKETING**

**3** Lecture Hours · **0** Lab Hours

Doctoral level analysis of marketing topic.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[Curriculum and  
Instruction](#)

[Educational Leadership  
and Policy Studies](#)

[Kinesiology](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Educational Curriculum & Instruction

College of Education and Health Professions

### Chair John Smith

Web [www.uta.edu/coed/curricandinstruct/](http://www.uta.edu/coed/curricandinstruct/)

Email [education@uta.edu](mailto:education@uta.edu)

Phone 817.272.2591

Fax 817.272.2530

[5th Floor Hammond Hall](#)

### Degrees / Certificates

#### Master's Degrees

Accelerated Online Ed. Curriculum & Instruction, M.Ed. Mathematics

Accelerated Online Ed. Curriculum & Instruction, M.Ed. Trip. Lit.

Accelerated Online Ed. Curriculum & Instruction, M.Ed. Science

Ed. Curriculum & Instruction, M.Ed.

Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics

Ed. Curriculum & Instruction, M.Ed. Non Thesis Science

Ed. Curriculum & Instruction, M.Ed. Writing Focus

Mind, Brain and Education, M.Ed. Non Thesis

Reading Specialist, M.Ed.

Teaching - Early Childhood, M.Ed.T.

Teaching - Middle Level, M.Ed.T.

Teaching - Secondary Level, M.Ed.T.

#### Certificates

Education in Teaching, All Level Certificate

Education in Teaching, Early Childhood Certificate

Education in Teaching, Mid-Level Certificate

Education in Teaching, Secondary Level Certificate

English Secondary Language Certificate

Gifted & Talented Certificate

Master Reading Teacher Certificate

Master Tech. Teaching Certificate

Reading Specialist Certificate

School Counselor Certificate

Teaching - Teacher Certification Only

### Graduate Faculty

[Joyce Myers](#)

#### Professor

[Ann Cavallo](#)

[Mary Crow](#)

[Christopher Kribs](#)

[Andrew Milson](#)

[Luis Rosado](#)

**Marc Schwartz**  
**John Smith**

**Associate Professor**

**Joohi Lee**  
**Jon Leffingwell**  
**Jodi Tommerdahl**  
**Jiyoon Yoon**

**Assistant Professor**

**Carla Amaro-Jimenez**  
**Amber Brown**  
**Holly Hungerford-Kresser**  
**Evguenia Malaia**  
**Leisa Martin**  
**Mohan Pant**  
**Kathryn Pole**  
**Peggy Semingson**

---

**Graduate Advisors**

**Mary Crow**

*School Counselor Certificate*

**Caitlin Guerrero**

*Ed. Curriculum & Instruction, Special Student*  
*Ed. Curriculum & Instruction, M.Ed.*  
*Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics*  
*Ed. Curriculum & Instruction, M.Ed. Non Thesis Science*  
*Ed. Curriculum & Instruction, M.Ed. Writing Focus*

**Teaira Little**

*Ed. Curriculum & Instruction, M.Ed.*

**Joyce Myers**

*Ed. Curriculum & Instruction, M.Ed.*

**Marc Schwartz**

*Mind, Brain and Education, M.Ed. Non Thesis*

---

**Department Information**

**Courses**

## Department Information

**Programs**

**Objective**

**Admissions Requirements**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Denied Admission**
- **Eligibility for Scholarships/Fellowships**
- **Distance Learning Options**

## Degree Requirements

- **M.Ed.T. in Curriculum and Instruction with Teacher Certification**
- **M.Ed. in Curriculum and Instruction**
- **M.Ed. in Curriculum and Instruction - Science Education**
- **M.Ed. in Curriculum and Instruction - Mathematics Education**
- **M.Ed. in Curriculum and Instruction - Literacy Studies** (available online)
- **M.Ed. in Curriculum and Instruction - Mind, Brain, and Education**
- **M.Ed. in Curriculum and Instruction - Social Studies Education**

## Coursework and Completion Requirements

### Professional-Level Certifications

- **Initial Teacher Certification**
- **Master Reading Teacher Certificate** (available online)
- **Reading Specialist Certification** (available online)
- **English as a Second Language (ESL)** (available online)
- **Bilingual Education (BIL)**
- **School Counseling Certification**

## Programs

The Department of Curriculum and Instruction currently offers the Master of Education in Teaching (M.Ed.T.) and the Master of Education in Curriculum and Instruction (M.Ed.) degrees. Certification and supplemental certifications are offered for: Reading Specialist, Master Reading Teacher, Bilingual Education (BEEP), and English as a Second Language (ESL). Distance learning opportunities in some degree programs are available for those interested (see section on Distance Learning Options). Students pursuing a master's degree are required, with the assistance of the Graduate Advisor and graduate faculty, to complete a tentative program of work. This program of work is filed in the College of Education and Health Professions Graduate Advising Office and may be modified as needed. All master's degrees in Curriculum and Instruction comprise a minimum of 36 semester hours and are non-thesis. Candidates for master's degrees are required to submit a final program of work and complete a designated capstone course for their program: EDUC 5397 for M.Ed.T. and M.Ed. in Curriculum and Instruction, and LIST 5317 for M.Ed. with emphasis in Literacy Studies.

## Objective

The Master of Education in Teaching (M.Ed.T.) degree is designed for those wishing to pursue initial teacher certification at the graduate level. The Master of Education in Curriculum and Instruction (M.Ed.) degree provides opportunities for those interested in developing effective teaching, research, and leadership skills that are congruent with an ever-expanding theoretical knowledge base in the field. The M.Ed. enables teachers to specialize in advanced coursework in their teaching fields and other professional certification areas designed to meet a variety of professional goals. Both degrees help prepare graduates to reflect upon their own teaching as well as on the state of education as a whole and to better understand the linkage between the theory and practice of teaching. Each student's program of study is planned individually and provides academic and/or pedagogical specialization within the context of the general field of education. Graduate faculty in the College of Education and Health Professions as well as those in departments and in the colleges throughout the University work closely with students in formulating study plans that meet the students' objectives and individual goals for professional growth. Each program of instruction includes both professional and academic components.

## Admissions Requirements

### Unconditional Admission

- Current GRE score of 400 on quantitative section (140 on the revised GRE) and 500 on verbal section (153 on the revised GRE)
- 3.0 GPA during the last 60 hours of undergraduate coursework and a 3.0 average on all graduate work
- 3 letters of reference on file

### Probationary Admission

Applicants who score less than 400 (140 on the revised GRE) on the quantitative and 500 (153 on the revised GRE) on the verbal sections of the GRE will be considered for probationary admission on the basis of the following:

- 3.0 GPA during the last 60 hours of undergraduate coursework AND a 3.0 average on all graduate work
- Professionally relevant experience
- Writing sample evaluated by the COEHP Graduate Studies Committee. When available, the GRE writing sample will be required for probationary admission.

**Terms of Probation upon Acceptance:** All students admitted under probation status will be required to earn a 3.0 GPA during the first 12 hours of graduate coursework in the program, with no grade lower than a "B."

### Provisional Admission

An applicant unable to supply all required documentation prior to the admissions deadline, but who otherwise appear to meet admission requirements, may be granted provisional admission.

### Deferred Admission

An applicant's admission may be deferred when a file is not complete or when denying admission is not appropriate.

### Denied Admission

An applicant may be denied admission if the conditions for unconditional and probationary admission have not been met.

In addition, if a student has been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons, that student may be denied admission or readmission to an educator preparation program in the College of Education and Health Professions.

### Eligibility for Scholarships/Fellowships

To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Office of Graduate Studies, and must be enrolled in a minimum of six (6) hours of coursework in both long semesters to retain their fellowships.

### Distance Learning Options

Many graduate courses in the Department of Curriculum and Instruction are offered on campus as well as over the Internet. For the distance learning option, students enroll in the Internet course and complete all course requirements from the convenience of their home or school computers. Basic computer competence is necessary (logging on to a Web site, sending and receiving e-mail). Students need a reliable Internet connection and a consistent e-mail address. All assignments are submitted electronically according to an established calendar of deadlines. Students proceed at

their own pace in a highly interactive learning environment.

## Degree Requirements

### Master of Education in Teaching (M.Ed.T.) with Teacher Certification

The Master of Education in Teaching (M.Ed.T.), a 36-hour non-thesis degree, is a unique and specialized degree that enables a student holding a baccalaureate degree to pursue initial teacher certification and use those hours toward requirements of a master's degree. In addition to being accepted by the Office of Graduate Studies, students must also be admitted into the Teacher Certification program (consult a teacher certification advisor for current admittance requirements). For teacher certification, students must meet state requirements for their teaching field(s) or specialization and complete the graduate-level coursework for early childhood - grade 6, middle level, secondary, or early childhood - grade 6 bilingual certification. They must also fulfill the student teaching requirements and pass the appropriate certification exams (consult a teacher certification advisor for current certification information). Up to 18 hours of teacher certification coursework may be applied to the total 36 hours required for completion of the M.Ed.T.; however, students must complete teacher certification courses and pass the appropriate certification exams before proceeding to courses that apply to the master's degree. Students may earn teacher certification without completing a master's degree. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on all programs.

### Master of Education (M.Ed.)

The Master of Education degree in Curriculum and Instruction (M.Ed.), a 36-hour non-thesis degree, is a broad-based degree that enables students to pursue academic and professional goals within an individualized program. Following are possible master's degree options.

#### M.Ed. in Curriculum and Instruction

This particular master's degree option is ideal for students desiring a pedagogical foundation in education in addition to an 18-hour concentration of a particular resource area or academic discipline. A common core of 18 hours of graduate education coursework in instructional strategies, curriculum design, and research are required. Students also choose from a variety of certifications available through the College of Education and Health Professions to incorporate into their master's degree plan (see the section on Professional Certifications), or they may choose to incorporate up to 18 hours of graduate coursework from disciplines outside of Education. For example, a degree plan for a student who desires TESOL (Teaching English to Speakers of Other Languages) certification would include the required 18 hours of coursework in Education along with the 18 hours of Linguistics coursework from the Program in Linguistics. The Graduate Advisor works with students in creating a degree plan that meets their professional needs and goals. (Note: The Graduate Advisor and graduate faculty must approve all coursework included in a degree plan.) This degree does not require a student to hold a teacher certificate. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

#### M.Ed. in Curriculum and Instruction - Science Education M.Ed. in Curriculum and Instruction - Mathematics Education

The *M.Ed. in Curriculum and Instruction - Science Education* and *M.Ed. in Curriculum and Instruction - Mathematics Education* offer opportunity for students to pursue graduate studies by taking a *Core component* of 6 courses (18 credit hours) in the College of Education and Health Professions focusing on topics such as inquiry-based, problem-based teaching and learning, diversity, and classroom research, and a *Concentration area component* of 6 courses (18 credit hours). The six *concentration area* courses may be taken either in the Department of Curriculum and Instruction for a science and mathematics content-curriculum integration emphasis and/or in the College of Science for deeper subject matter emphasis in the various science and mathematics disciplines. These programs offer flexibility in course selection, yet are focused on science and mathematics teaching and learning in K-16 educational settings.



A version of this program is offered online through the Academic Partnership program. For more information on the online program please visit: <http://stateu.com/uta/education.asp> For information on the on-campus science and mathematics education program and scholarships available for teachers, contact: Dr. Ann Cavallo, [cavallo@uta.edu](mailto:cavallo@uta.edu) or Jamie Williams, [robin@uta.edu](mailto:robin@uta.edu), 817.272.2832.

### M.Ed. in Curriculum and Instruction - Literacy Studies (available online)

One of the most popular M.Ed. degree plans is the M.Ed. in Curriculum and Instruction with an emphasis in Literacy Studies. In this program, students specialize in advanced coursework designed to meet a variety of professional goals related to literacy. For instance, students may pursue professional certificates including the following.

- **Reading Specialist** is a national certification available in all states. Literacy coaches generally work with teachers to help them with best literacy practices. Reading Specialist is an advanced certificate that certified teachers may add to their existing credential upon completion of two year's teaching experience and a master's degree with at least 27 hours of graduate coursework in literacy. Once recommended for the Reading Specialist from UTA, students may also apply for the Master Reading Teacher (MRT) certificate without the additional MRT exam.
- **English as a Second Language** is a national certification available in all states. All states have some type of English as a Second Language (ESL) designation. In Texas, ESL is an add-on certificate that individuals with an initial teaching certificate can add to their existing credential with only 12 hours of graduate coursework.
- **Master Reading Teacher (MRT)** is a Texas only certificate. MRTs work in designated schools to tutor struggling readers and may also serve as literacy coaches. The MRT sequence includes 12 graduate hours of coursework. Students who hold the Reading Specialist Certificate can apply for the MRT without additional coursework or the MRT test.

Out of state students seeking certification should go to <http://www.uta.edu/coehp/distaneducation/> for information about their certification options.

In addition to these professional certificates, students may choose focused coursework in areas including:

- Writing
- Working with culturally and linguistically diverse students

This program requires 36 credit hours (12 courses). Once students have successfully completed all coursework, they will graduate with a Master of Education in Curriculum and Instruction. In addition, on passing the appropriate TExES tests, students will also have the Reading Specialist Certification, Master Reading Teacher Certification, and/or supplemental certification in English as a Second Language. The ESL is a 12-hour, four-course program that can be taken as part of this master's degree plan or separately in preparation for the TExES test for supplemental certification in ESL.

### M.Ed. in Curriculum and Instruction - Mind, Brain, and Education

The master's degree in Mind, Brain, and Education integrates research in the cognitive and neurosciences and education along with classroom practice to develop more effective teaching methods as well as a deeper understanding of how to support life-long learning. The degree is a 36-hour non-thesis, non-certification program, focused on integrating cognitive science, neuroscience, and education to challenge and information pedagogy. The program focuses on the potential and limits of cognitive neuroscience in education and the central role educators can play in shaping research agendas in MBE. Graduates are expected to serve their community and the field by completing a project defined and carried out during the two-year program.

Applicants must be accepted by the Office of Graduate Studies and admitted to the program as part of a cohort. Students complete nine required courses (27 credits), choose two additional courses from a list of approved electives (6 credits) and choose one unrestricted additional course



that meets the needs of the candidate (3 credits). For additional information, contact Dr. Marc Schwartz at [schwarma@uta.edu](mailto:schwarma@uta.edu).

### M.Ed. in Curriculum and Instruction - Social Studies Education

Graduate students interested in broadening their knowledge and instructional skills in Social Studies take a *Core component* of 6 courses (18 credit hours) in the College of Education and Health Professions focusing on topics such as inquiry-based, problem-based teaching and learning, diversity, and classroom research, and a Social Studies *Concentration area component* of 6 courses (18 credit hours). Social Studies concentration area courses may be selected from an approved list of related courses in various departments across campus, with advisor approval. For further information contact Dr. Andy Milson at [milson@uta.edu](mailto:milson@uta.edu).

### Coursework and Completion Requirements

- Coursework that is more than six years old at the time of graduation or teacher/administrator certification program completion cannot be used toward meeting the requirements for a master's degree or graduate-level certification.
- Master's degree and graduate level certification programs must be completed within six years (time in military service excluded) from initial registration in the Graduate School.
- Appropriate state exams and application to the State Board for Educator Certification for a standard certificate must be made within six months of completion of student teaching. If a candidate allows the six month period to go by without passing all state exams and applying for certification, additional coursework and/or state exams will be required.
- Each candidate in the College of Education and Health Professions of UT Arlington will be evaluated on **professional dispositions** by faculty and staff. These dispositions have been identified as essential for a highly-qualified professional. Instructors and program directors will work with candidates rated as "unacceptable" in one or more stated criteria. The candidate will have an opportunity to develop a plan to remediate any digressions.

### Professional-Level Certifications

The Department of Curriculum and Instruction offers graduate-level programs leading to professional certificates. Certifications include Initial Teacher Certification (Early Childhood - Grade 6, Middle Level, Secondary, and All-Level) and the Reading Specialist and Master Reading Teacher Certification. Supplemental certification is available for English as a Second Language (ESL), Bilingual (BIL) and Gifted and Talented. The graduate-level coursework required for these programs may be applied toward a master's degree (M.Ed.T.). The Graduate Advisor works with the student to build an individual degree plan that incorporates one or more of these certification areas. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on these programs.

#### Initial Teacher Certification

Students holding a baccalaureate degree may pursue initial teacher certification at the graduate level. Students must be admitted to the Graduate School as master's-degree-seeking students (students may elect to complete certification only) and be admitted to Teacher Certification in the College of Education and Health Professions (see a Teacher Certification advisor for current requirements). Up to 18 hours of graduate-level teacher certification hours may be applied toward an M.Ed.T. Students must also complete the student teaching requirements and pass the appropriate TExES exams. Candidates for Teacher Certification must also meet all state requirements for coursework in their teaching field/academic specialization. Note, certification students must be advised and cleared to take teacher certification courses through Teacher Certification Advising. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

#### Master Reading Teacher Certificate (available online)

This certification focuses on the needs of the multicultural and multilingual classrooms of today. To qualify for the Master Reading Teacher (MRT) Certificate, students must complete nine semester credit hours and pass the Master Reading Teacher TExES. Students who complete the requirements for the Reading Specialist certificate and are recommended for that certificate may apply for the MRT as well without taking the MRT exam. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### Reading Specialist Certification (available online)

Teachers interested in focusing on the important area of reading may pursue the Reading Specialist Certificate, an all-level (K-12) certificate. This unique program focuses on the needs of the multicultural and multi-linguistic classrooms of today with the possibility of integrating the requirements for the Master Reading Teacher and the supplemental certification for ESL into the total program if desired. To qualify for the Reading Specialist Certificate, students must complete a master's degree, hold a valid Texas teacher certificate, document two years of acceptable classroom teaching experience, and pass the Reading Specialist TExES. Those who already hold a master's degree and who are seeking only the Reading Specialist Certificate are required to complete 27 semester credit hours. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### English as a Second Language (ESL) (available online)

The English as a Second Language (ESL) certification prepares candidates to teach children from all cultural and language backgrounds (speakers of Spanish, Vietnamese, etc.), and is required for those teachers working with students in grades PK-12 whose first language is not English. (No foreign language background is required for the ESL certificate.) The ESL endorsement may be added to any valid Texas teacher certificate. Students are required to take four required courses in any sequence, complete a practicum in an ESL classroom or one year of successful teaching experience in an ESL or Bilingual Education program approved by the Texas Education Agency, and pass the ESL TExES. (The four courses may be applied toward a master's degree and to the Reading Specialist Certificate.) See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### Bilingual Education (BIL)

Teachers who are fluent in Spanish and wish to specialize in bilingual education will want to add the Bilingual Education to their initial certification. The required 12 hours of coursework may be incorporated into a master's degree program developed in consultation with the Graduate Advisor and graduate faculty. Students are required to take four courses and provide documentation of one year of successful teaching experience in a bilingual setting approved by the Texas Education Agency. Candidates must also pass the EC-6 Bilingual Generalist, and the Bilingual Target Language Proficiency Test--Spanish. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### School Counseling Certification

UTA's Counseling Certification Program is designed for teachers who hold a master's degree in Education and who have at least two years of teaching experience. At the end of the required 15 hours of coursework, successful candidates must pass the TExES certification examination for School Counselors. This will qualify them to hold positions as school guidance counselors at any level from kindergarten through grade 12 in Texas schools. The six-course, 15-hour counseling program will be taught on campus during after-school hours. A six-hour supervised counseling practicum will take place in schools or on campus with school-age children. The practicum hours must be successfully accomplished in order for the candidate to be approved by the UTA to take the state exam. A school counselor needs to acquire the academic knowledge and skills necessary to do the job but additionally must have a personality or disposition appropriate for helping professions. Candidates will be expected to complete the supervised practicum that will allow them the opportunity to demonstrate they can work successfully with students and others in the educational environment. Admission requirements include a completed master's degree from an accredited university in any approved area of education, transcript of both undergraduate and

graduate coursework, and a minimum of two completed years of successful teaching either in public or private schools in any grade, K-12. A letter of support documenting the successful teaching experience will be required. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) or contact program director Dr. Mary Lynn Crow ([mlcrow@uta.edu](mailto:mlcrow@uta.edu)) for more details on the program.

## **BEEP Courses**

### **BEEP5315 – PRACTICUM**

3 Lecture Hours · 0 Lab Hours

Practicum in student's teaching area(s). This semester-long experience will help students apply theory and research to practice.

### **BEEP5318 – FOUNDATIONS IN BILINGUAL EDUCATION**

3 Lecture Hours · 0 Lab Hours

Analyzes the development of bilingual education in the United States. Introduces bilingual education program models and discusses research findings on their effectiveness.

### **BEEP5321 – ESL METHODS FOR EC-6 LEARNERS**

3 Lecture Hours · 0 Lab Hours

Compares first and second-language acquisition processes. Identifies effective teaching practices to meet the needs of English language learners. Analyzes elements from Spanish that can affect the acquisition of literacy in English.

### **BEEP5361 – LANGUAGE LEARNING: EDUCATIONAL PERSPECTIVES**

3 Lecture Hours · 0 Lab Hours

Deals with the relationship between first and second language acquisition and literacy, dialect, linguistics, culture; nature and definition of language; overview of linguistic science and language with pedagogical applications.

### **BEEP5362 – LITERACY INSTRUCTION IN ESL/BILINGUAL SETTINGS**

3 Lecture Hours · 0 Lab Hours

Translation of theory into practice stressing various methods and techniques for teaching ESL/bilingual students with emphasis on techniques for oral language development, reading and writing. A comparison/contrast of the various methods, their specifics, and when and how to use them for various instructional objectives as well as the relationship of language development, culture, and conceptual processes to language teaching.

### **BEEP5363 – LITERACY DEVELOPMENT IN ENGLISH AND SPANISH**

3 Lecture Hours · 0 Lab Hours

Focuses on the development of literacy in bilingual students with specific emphasis on the rationale, methods, and materials for literacy instruction in the student's home language. Attention to evaluating and supplementing first-language literacy materials and supporting the successful transition from first-language literacy instruction to literacy instruction in English.

### **BEEP5364 – LITERACY INSTRUCTION IN SPANISH IN THE CONTENT AREAS**

3 Lecture Hours · 0 Lab Hours

Focuses on methods and materials for teaching content-area subjects in the student's home language. Additional focus on supporting the transition from home-language instruction to English-language instruction.

## **BEEP5365 – ORGANIZATION & ADMINISTRATION OF DUAL LANGUAGE PROGRAMS**

2 Lecture Hours · 1 Lab Hour

Analysis of the research background and implementation of various models of dual language instruction. Insight of the process, data collection, and reporting requirements of the state and federal special populations legislation. This course requires an internship with the office of Federal Programs and/or the office of Bilingual/ESL Education in local school districts. Prerequisite: BEEP 5318.

## **BEEP5366 – SPANISH FOR SCHOOL ADMINISTRATORS & TEACHERS**

3 Lecture Hours · 0 Lab Hours

Development of Spanish proficiency for teachers and administrators through an immersion approach. Emphasis on concepts and terminology related to education, program administration, community involvement, and communication with Spanish-speaking parents. This course can be repeated.

## **BEEP5391 – INDEPENDENT RESEARCH**

3 Lecture Hours · 0 Lab Hours

Research for course substitution or a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **ECED Courses**

### **ECED5190 – SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION**

1 Lecture Hour · 0 Lab Hours

An examination of different topics related to early childhood education. This course may be repeated for credit with permission.

### **ECED5191 – INDEPENDENT RESEARCH**

1 Lecture Hour · 0 Lab Hours

Research over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **ECED5290 – SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION**

2 Lecture Hours · 0 Lab Hours

An examination of different topics related to early childhood education. This course may be repeated for credit with permission.

### **ECED5291 – INDEPENDENT RESEARCH**

2 Lecture Hours · 0 Lab Hours

Research over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **ECED5310 – DIVERSE POPULATIONS IN TODAY'S SCHOOLS**

3 Lecture Hours · 0 Lab Hours

Provides preparation for accommodating children with special needs in EC-6 classroom settings. Focus on characteristics of children with special needs, program accommodations, legal issues, individual assessment and planning, family and agency involvement, and inclusion strategies. Course will examine a variety of diverse settings where children and families live and learn, including homeless shelters.

### **ECED5321 – LANGUAGE AND LITERACY DEVELOPMENT YEARS**

3 Lecture Hours · 0 Lab Hours

Examine relationships among listening, speaking, reading, and writing. Focus on verbal and non-verbal

communication skills in native and second-language development. Consider theories of speaking, reading, and writing in children, with focus on the use of children's literature in social and cognitive development.

### **ECED5390 – SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to early childhood education. This course may be repeated for credit with permission.

### **ECED5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **EDML Courses**

### **EDML5302 – SCIENCE IN THE MIDDLE GRADES**

**3** Lecture Hours · **0** Lab Hours

The examination of instructional strategies, materials, current research, and technology pertinent to teaching science in the middle grades; the scope and sequence of science content and implementation of instructional approaches to accommodate diverse student populations.

### **EDML5303 – MATHEMATICS IN THE MIDDLE GRADES**

**3** Lecture Hours · **0** Lab Hours

The examination of instructional strategies, materials, current research, and technology pertinent to teaching mathematics in the middle grades; the scope and sequence of math content and the selection and implementation of instructional approaches to accommodate diverse student populations.

### **EDML5304 – SOCIAL STUDIES IN THE MIDDLE GRADES**

**3** Lecture Hours · **0** Lab Hours

An examination of content, methods, current research, and learning theory appropriate for social studies education in the middle grades. Special attention to methods that promote analytical and evaluative abilities necessary for participatory democracy in a culturally diverse society.

### **EDML5308 – MIDDLE GRADES ORGANIZATION, INSTRUCTION, AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

The examination of principles, theories, and research related to developmentally responsive middle level programs, effective instruction and effective strategies of classroom management. Attention is given to the employment of a variety of approaches for developing an appropriate climate to meet the varying needs of the middle level student.

### **EDML5315 – PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Practicum in student's teaching area(s). This longitudinal experience will help students apply theory and research to practice.

### **EDML5328 – PREADOLESCENT/ADOLESCENT GROWTH, DEVELOPMENT, AND LEARNING THEORY**

**3** Lecture Hours · **0** Lab Hours

Physical, social, emotional, and cognitive growth patterns of 10- to 15-year-old children, emphasizing familial, cultural, societal, and genetic determinants of behavior. Attention is given to current research regarding the developmental characteristics of adolescents, including exceptional learners and students

with special needs.

### **EDML5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **EDTC Courses**

### **EDTC5190 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDTC5191 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. May be repeated for credit with permission.

### **EDTC5290 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDTC5291 – INDEPENDENT RESEARCH**

**2** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDTC5300 – INTRODUCTION TO FOUNDATION OF EDUCATION INSTRUCTIONAL DESIGN AND TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Analysis of integrating TEKS, computers and related technologies in education. Topics include issues and concerns prior to integration, use of software in teaching and learning, identifying resources and strategies for use of the World Wide Web, and creating instructional activities into and across curriculum.

### **EDTC5301 – CURRENT APPLICATIONS OF TECHNOLOGY IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Study of technology use in educational environments. Topics include: instructional, learning, assessment, and management applications; a review of current research on selection, evaluation, and integration of appropriate media; and computer hardware and software, multimedia, laser disk, CD-ROM, and telecommunications systems.

### **EDTC5302 – INTERNET IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Course is designed to aid educators and training professionals in developing robust techniques for locating, utilizing, and creating Internet resources for professional productivity and research.

### **EDTC5310 – COMPUTER APPLICATIONS IN CURRICULUM AND INSTRUCTION**



**3 Lecture Hours · 0 Lab Hours**

Designed for both elementary and secondary teachers; skills and methods necessary to implement computer applications within the curriculum. Methods for managing the computer in the classroom, courseware telecommunications within the curriculum.

### **EDTC5320 – WEB AUTHORING**

**3 Lecture Hours · 0 Lab Hours**

Study of Web site planning, development and HTML tagging. Topics include: storyboards, content creation, Web site tagging with browser independent tags, use of color and fonts to communicate concepts, interactivity by design, ethical use of and respect for intellectual property, understand copyright, fair use, patent, and trademarks, the Master Technology Teacher Standards (EC-12) and the Standards for Basic Endorsement in Educational Computing and Technology Literacy.

### **EDTC5330 – DESKTOP PUBLISHING**

**3 Lecture Hours · 0 Lab Hours**

Study of desktop publishing planning, development, and production. Topics include: desktop publishing terminology, basic design theory, principles of form and design, guidelines for desktop publishing, ethical use of and respect for intellectual property, understand copyright, fair use, patent, and trademarks, the Master Technology Teacher Standards (EC-12) and the Standards for Basic Endorsement in Educational Computing and Technology Literacy.

### **EDTC5340 – MULTIMEDIA**

**3 Lecture Hours · 0 Lab Hours**

Study of multimedia planning, development, and implementation that maximize the use of technology, student learning, and teacher effectiveness. Topics include: methodologies for tutorials, hypermedia, drills, simulations, educational games, open-ended learning environments, testing, Web-based learning, interactivity by design, ethical use of and respect for intellectual property, understand copyright, fair use, patent, and trademarks, the Master Technology Teacher Standards (EC-12) and the Standards for Basic Endorsement in Educational Computing and Technology Literacy.

### **EDTC5390 – SELECTED TOPICS IN EDUCATION**

**3 Lecture Hours · 0 Lab Hours**

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDTC5391 – INDEPENDENT RESEARCH**

**3 Lecture Hours · 0 Lab Hours**

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. May be repeated for credit with permission.

## **EDUC Courses**

### **EDUC5190 – SELECTED TOPICS IN EDUCATION**

**1 Lecture Hour · 0 Lab Hours**

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDUC5191 – INDEPENDENT RESEARCH**

**1 Lecture Hour · 0 Lab Hours**

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **EDUC5263 – READING AND DEVELOPMENT**

**2** Lecture Hours · **0** Lab Hours

This course will focus on the acquisition of reading skills in the typically developing child. Sub-skills and precursors of reading such as visual and phonological processing will be examined from a neurological point of view. This foundational knowledge will then be applied to researching reading difficulties as well as the teaching and learning in the classroom for typically developing students and those with reading difficulties.

### **EDUC5290 – SELECTED TOPICS IN EDUCATION**

**2** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDUC5291 – INDEPENDENT RESEARCH**

**2** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **EDUC5305 – CURRICULUM DESIGN, IMPLEMENTATION, AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation. Emphasis on current trends in the content areas.

### **EDUC5309 – ADVANCED INSTRUCTIONAL STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

This course engages students in a study of advanced models of teaching and learning such as concept attainment, inductive thinking, inquiry, problem-based learning, role play, simulation games and other models, with an analysis of research on the effectiveness of these models. Emphasis is on current trends in the content areas.

### **EDUC5310 – DIVERSE POPULATIONS IN TODAY'S SCHOOLS**

**3** Lecture Hours · **0** Lab Hours

An overview of the diverse populations in today's schools. Urban, suburban, and rural school communities and populations will be addressed with special attention to issues of human growth and development, culture, ethnicity, exceptionality, gender, language, religion and socioeconomic status.

### **EDUC5314 – EFFECTIVE CLASSROOM INSTRUCTION**

**3** Lecture Hours · **0** Lab Hours

Designed to provide teachers with skills and competencies based on research findings on effective teaching and instruction related to promoting student academic achievement. Includes identifying, developing, and practicing instructional variables that affect teacher performance and student learning tasks.

### **EDUC5315 – PRACTICUM**

**0** Lecture Hours · **3** Lab Hours

Practicum in student's teaching area. This longitudinal experience will help students apply theory and research to practice.

### **EDUC5321 – EDUCATIONAL RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Examination of basic concepts and procedures necessary for empirical research investigations within classroom contexts, experimental design, data collection and interpretation, and statistical analysis.



## **EDUC5322 – EDUCATIONAL RESEARCH AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An overview of basic concepts and procedures necessary for analyzing, designing, and conducting quantitative and qualitative educational studies. A focus on educational research, including empirical research, investigations data collection and interpretation, and statistical analysis. Also, a focus on educational evaluation including accreditation, personnel appraisal, and educational programs and materials.

## **EDUC5329 – CLASSROOM MANAGEMENT AND DISCIPLINE**

**3** Lecture Hours · **0** Lab Hours

Analysis of the variables that affect teacher and student behavior in the classroom. Survey of effective strategies of classroom management and discipline based on contemporary research. Particular attention to individual student differences in settings such as gifted and talented, handicapped, and learning disabled.

## **EDUC5330 – LEADERSHIP IN THE INSTRUCTIONAL SETTING**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement.

## **EDUC5358 – THEMATIC SCIENCE FOR ELEMENTARY AND SECONDARY TEACHERS**

**3** Lecture Hours · **0** Lab Hours

Professional development program for elementary and secondary science teachers who will examine a variety of instructional strategies. The course will provide a broad spectrum of content from all areas of science and provide opportunities to participate in investigations, field trips and seminars. The course will facilitate the implementation of a thematic science curriculum in elementary and secondary schools through research-based practices.

## **EDUC5359 – ENVIRONMENTAL SCIENCE FOR ELEMENTARY AND SECONDARY TEACHERS**

**2** Lecture Hours · **2** Lab Hours

Designed for elementary, middle and high school teachers who will examine a variety of environmental education issues and instructional strategies for classroom and outdoor settings. The course will provide a broad spectrum of content from all areas of science and will provide opportunities to participate in field trips, science investigations and seminar sessions. It will facilitate the implementation of an environmentally based curriculum in schools using best practices.

## **EDUC5360 – INTRODUCTION TO MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Students will explore and integrate five themes central to the emerging field of Mind, Brain and Education (MBE): development as seen by cognitive scientists and neuroscientists; the conceptual and technical tools used in MBE; and specific educational issues (e.g., dyscalculia, dyslexia, attention deficits, role of emotions etc.). The five themes function as layers students peel back to reveal the complexity of integrating three major disciplines into one field of study.

## **EDUC5361 – INTRODUCTION TO EDUCATIONAL NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

This course is designed to provide an introduction to foundational areas of neuroscience such as brain anatomy and brain mapping techniques and its applications to education. Students will study different viewpoints of links between education and neuroscience and develop their own notions of what educational

questions might be answered with brain-based techniques.

### **EDUC5362 – THE NEUROSCIENCE OF TYPICAL AND ATYPICAL LANGUAGE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course will examine the many levels of language including phonetics, phonology, semantics, syntax and pragmatics from both functional and neuroscientific perspectives.

### **EDUC5363 – THE NEUROSCIENCE OF TYPICAL AND ATYPICAL DEVELOPMENT OF MATHEMATICAL AND REASONING ABILITY**

**3** Lecture Hours · **0** Lab Hours

The course focuses on the development of problem-solving, logical, numeracy, and mathematical skills from a cognitive neurocognitive perspective. Woven throughout the course is attention to cognitive biases in scientific thinking.

### **EDUC5364 – EPISTEMOLOGY AND NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

This course looks at how the brain supports the basic approaches of the mind uses to produce knowledge. In particular we compare the deductive and inductive methods and the neurological correlates that support both forms of knowledge production. Also examined is the role of the frontal cortex in decision making that results in the learner's choices in how to make sense of data.

### **EDUC5365 – THEORETICAL AND CONCEPTUAL MODELS IN MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

This course is designed for students who wish to connect cognitive science to instructional practice. Students examine the roles that cognitive models in psychology play in learning and in curriculum design. The cognitive models in this course are used to provide a framework for recognizing possible strategies for improving or redesigning curricula, or to begin building lessons

### **EDUC5366 – DYNAMIC SYSTEMS - UNDERSTANDING COMPLEXITY IN EDUCATIONAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

This course focuses on making sense of the impact of interactions between educational variables in complex systems like classrooms and schools.

### **EDUC5367 – RESEARCH METHODS IN MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

This course presents an overview of the process of scientific inquiry in general, while fostering an understanding of research paradigms used by educational practitioners. To meet the course objectives students will examine studies from the cognitive neurosciences and medicine. While these modern methods of inquiry are complex, the findings are nevertheless, often, fairly simple to understand, and easily support the primary goal of the course.

### **EDUC5368 – CONDUCTING RESEARCH IN MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

This one to two semester course allows students to build a research project under faculty supervision. The goal of the course is to help students understand the nature and techniques involved in creating useable knowledge in mind, brain and education.

### **EDUC5370 – INTRODUCTION TO GIFTED AND TALENTED CHILDREN**

**3** Lecture Hours · **0** Lab Hours

Psychological characteristics of gifted and talented children. Introduction to identification techniques, educational programs, instructional approaches, and special problems.

### **EDUC5371 – MEASUREMENT AND ASSESSMENT OF GIFTED AND TALENTED CHILDREN**

**3** Lecture Hours · **0** Lab Hours

Tests, formal and informal measures, and systems for identification and selection of the gifted and talented student. Basic test construction theory, test interpretation, and test uses.

### **EDUC5372 – METHODS, MATERIALS, AND CURRICULUM FOR THE GIFTED AND TALENTED**

**3** Lecture Hours · **0** Lab Hours

Curriculum theory and curriculum design for the gifted student. Methodology for implementing practical and theoretical objectives for gifted instruction.

### **EDUC5373 – CREATIVITY: THEORIES, MODELS, AND APPLICATION**

**3** Lecture Hours · **0** Lab Hours

The concept of and current research on creativity, the nature and assessment of creative thinking, as well as methods of fostering creativity.

### **EDUC5374 – PRACTICUM**

**1** Lecture Hour · **5** Lab Hours

Participation in a gifted and talented setting supervised by a university and/or school district representative. A wide range of practical experiences will be emphasized. Graded P/F/R.

### **EDUC5380 – DIVERSITY IN EDUCATIONAL SETTINGS**

**3** Lecture Hours · **0** Lab Hours

Effective leadership, instruction, and management strategies for work in diverse educational settings. Designed to provide increased self-awareness and insight into issues of diversity such as culture, ethnicity, exceptionalism, gender, language, religion, and socioeconomic status. Demographic issues along with urban and suburban educational settings will also be addressed.

### **EDUC5390 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDUC5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **EDUC5394 – UNDERSTANDING CLASSROOM RESEARCH**

**3** Lecture Hours · **0** Lab Hours

In this course, students gain an understanding of educational research and critically analyze resources of research, such as professional journals, Internet sites, technical reports, ERIC (Education Resources Information Center) documents, and reports of professional organizations. The students will examine historical trends and themes in education and how they have changed and progressed to newer, cutting-edge educational research that informs classroom instruction. Students will analyze research data and reports of research with the purposes of, gaining understanding of sound educational research techniques; evaluating research designs including issues of validity and reliability; gaining knowledge of both quantitative and qualitative data collection procedures; interpreting the results and implications of research; and learning the form of technical, scholarly writing. Through course experiences, students will be prepared

to write meaningful research questions and design methodologies for conducting their own classroom research projects. Students will also learn to be effective consumers of research, equipped with skills needed to make sense of classroom, district, state, national, and international educational research studies. This course is to be taken after at least 9 hours of graduate course work and preceding EDUC 5395 and EDUC 5397.

### **EDUC5395 – DESIGNING CLASSROOM RESEARCH**

**3** Lecture Hours · **0** Lab Hours

In this course, students will develop their own classroom educational research project. Their designed study will be based in the literature in their educational field and focus on classroom research questions and problems that will inform teaching practices. In this course, students will develop an individual research problem statement, argue the significance of the problem, complete a written literature review and logical chain of reasoning related to the stated problem, write specific research questions to investigate the problem in educational settings, and design a research study (methodology) that will effectively investigate their research questions. Students design a research study that shows promise for improving education, written as the first three chapters of a scholarly classroom action research project. Prerequisite: EDUC 5394. For M.Ed.T. students, this course is to be taken in the final semester of the masters' degree program. For M.Ed. students, this course is to be taken in the semester just prior to the final semester of the masters' degree program, and in the semester immediately preceding EDUC 5397.

### **EDUC5396 – EEG LABORATORY AND EXPERIMENTAL DESIGN**

**0** Lecture Hours · **3** Lab Hours

This course is an introduction to EEG technique, covering experimental design, recording, analysis, and interpretation of brainwaves.

### **EDUC5397 – IMPLEMENTING AND DISSEMINATING CLASSROOM RESEARCH**

**3** Lecture Hours · **0** Lab Hours

In this course, students will implement the classroom research designed and written in EDUC 5395, collect data from this research, and interpret results. Students will prepare a final, written research report that presents the investigation and its results in a 5-chapter professional format, such as would be prepared as a paper for presentation at a professional conference and/or publication in an educational journal. At the conclusion of this course, students will submit a copy of their research project report to the course instructor and present the completed project as their final Capstone Experience for the masters degree in education. Prerequisites: EDUC 5394 and EDUC 5395. This course is to be taken in the final semester of the M.Ed. and in the semester immediately following EDUC 5395.

### **EDUC5600 – COUNSELING STUDENTS IN SCHOOLS**

**3** Lecture Hours · **3** Lab Hours

The focus of this capstone course will be individual and group counseling theories and techniques for pre k-12 students in an educational setting. Special techniques are included for substance abuse, and for using group play therapy. Knowledge of Diagnostic and Statistical Manual of Mental Disorders, 4th. Edition (DSM IV) will be covered for purposes of diagnosis and for outside referral when necessary. Three hours in a supervised counseling practicum in area schools or with school children will be required.

## **EDUCIR Courses**

### **EDUCIR5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **LIST Courses**

### **LIST5191 – INDEPENDENT RESEARCH IN READING**

**1** Lecture Hour · **0** Lab Hours

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

### **LIST5291 – INDEPENDENT RESEARCH IN READING**

**2** Lecture Hours · **0** Lab Hours

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

### **LIST5316 – LITERACY PRACTICUM I**

**1** Lecture Hour · **5** Lab Hours

This practicum is intended for entering in the M.Ed. with Literacy Emphasis who plan to teach reading and writing and become literacy coaches/certified Reading Specialists in K-12 schools. The course introduces the national Reading Specialist Standards and offers an overview of the program. The course combines an introduction to the theory, research, and knowledge in the field of literacy with application through field experiences in schools and classrooms. Students begin their program portfolio focused on the national Reading Specialist Standards. Graded F,P,W. Prerequisite: This course should be taken in the first or second semester of a student's program.

### **LIST5317 – LITERACY PRACTICUM II**

**1** Lecture Hour · **5** Lab Hours

This practicum is intended as the capstone experience for students in the M.Ed. with Literacy Emphasis who plan to teach reading and writing and become literacy coaches/certified Reading Specialists in K-12 schools. The course provides an opportunity to synthesize the theory and research related to literacy that has been presented in the program, to explore literacy program development and the implementation of technology in literacy programs, and to participate in professional leadership options. Students apply theory/research through field experiences in a professional setting. Students must complete their program portfolio focused on the national Reading Specialist Standards. Graded A,B,C,D,F,P,W. Prerequisite: LIST 5316 and at least 8 additional courses in the M.Ed. with Literacy Emphasis.

### **LIST5325 – UNDERSTANDING LITERACY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Designed as an introduction and exploration of literacy research. Provides the opportunity to read broadly in the area of literacy research to become aware of current trends in literacy research. Emphasizes the tools for critically consuming literacy research and utilizing existing research in personal examinations of literacy topics and questions. Course must be taken prior to LIST 5385.

### **LIST5326 – PRE-ADOLESCENT & ADOLESCENT LITERACY**

**3** Lecture Hours · **0** Lab Hours

Focuses on literacy theory, research, and practice as it relates to pre-adolescents and adolescents. Addresses sociocultural, cognitive, linguistic, psychological, and developmental influences on literacy. Explores the development of curricular designs for teaching reading/language arts in middle and secondary schools including reading, writing, oral communication, literature, and digital literacy.

### **LIST5345 – CONTENT AREA READING AND WRITING**

**3** Lecture Hours · **0** Lab Hours

Explores methods of teaching reading, writing, and study skills in content area subjects. Emphasis on text structure and the difference between narrative and expository text, graphic organizers for text structure, the reading/writing process as applied to informational text. Classroom adaptations for culturally and linguistically diverse populations in the content areas also will be addressed.

### **LIST5346 – TEACHING THE WRITING PROCESS**

**3** Lecture Hours · **0** Lab Hours

Current research and theory on the writing process, how children develop as writers, the teacher's role, the learning environment, and motivation, assessment, and evaluation in writing.

### **LIST5350 – LITERACY ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Formal and informal assessment of student literacy learning, and diagnosis of student literacy learning strengths and needs.

### **LIST5353 – LITERATURE FOR CHILDREN AND YOUNG ADULTS**

**3** Lecture Hours · **0** Lab Hours

Selection, evaluation, and use of current literature published for children and young adults.

### **LIST5354 – MULTICULTURAL LITERATURE FOR CHILDREN**

**3** Lecture Hours · **0** Lab Hours

Study of literature for children and young adults which reflects the culture and experiences of African-Americans, Asian-Americans, Mexican-Americans, and Native Americans, among others. Consideration of selection guidelines, evaluation of literary quality as well as cultural authenticity and teaching applications, including adaptations for culturally and linguistically diverse populations.

### **LIST5361 – LANGUAGE LEARNING: EDUCATIONAL PERSPECTIVES**

**3** Lecture Hours · **0** Lab Hours

Deals with the relationship between first and second language acquisition and literacy, dialect, linguistics, culture; nature and definition of language; overview of linguistic science and language with pedagogical applications.

### **LIST5362 – LITERACY INSTRUCTION IN ESL/BILINGUAL SETTINGS**

**3** Lecture Hours · **0** Lab Hours

Translation of theory into practice stressing various methods and techniques for teaching ESL/bilingual students with emphasis on techniques for oral language development, reading and writing. A comparison/contrast of the various methods, their specifics, and when and how to use them for various instructional objectives as well as the relationship of language development, culture, and conceptual processes to language teaching.

### **LIST5373 – FOUNDATIONS OF LITERACY LEARNING IN EC-6 CLASSROOMS**

**3** Lecture Hours · **0** Lab Hours

Balanced literacy approach to literacy instruction in EC-6 classrooms with an emphasis on reading and writing including the critical areas of: phonics, phonemic awareness, word study, fluency, and comprehension. In addition, the course examines various theoretical models of reading along with the principles of teaching reading and writing using a variety of instructional strategies, effective program organization, assessment, and classroom management.

### **LIST5381 – NATIONAL WRITING PROJECT PART I**

**3** Lecture Hours · **0** Lab Hours

An intensive institute in which teachers learn ways to improve student writing abilities by improving their own teaching and learning of writing. Students participate in an intensive literature review related to the area of writing instruction. Graded A,B,C,D,F,W. Prerequisite: Students must apply and be invited to participate in this course. Concurrent enrollment in LIST 5382.

### **LIST5382 – NATIONAL WRITING PROJECT PART II**

**3** Lecture Hours · **0** Lab Hours

An intensive institute in which teachers learn ways to improve student writing abilities by improving their own teaching and learning of writing. For this part of the workshop, students build on their literature review by writing a research proposal and developing research-based writing instruction. In addition, professional development training for classroom teachers is provided. Graded A,B,C,D,F,P,W. Prerequisite: Students must apply and be invited to participate in this course. Concurrent enrollment in LIST 5381.



### **LIST5383 – WRITING FOR PROFESSIONAL PUBLICATION**

**3** Lecture Hours · **0** Lab Hours

This course focuses instructor and peer interaction as students conduct literacy-related research, analyze data, write up the results, and disseminate their completed study to a professional journal. A comprehensive study of professional journals and their requirements for submission is included in this course. Graded A,C,D,F,P,W. Prerequisite: LIST 5385 or program advisor approval.

### **LIST5384 – ADVANCED PEDAGOGY OF WRITING**

**3** Lecture Hours · **0** Lab Hours

This course focuses on strategies for teaching prewriting, drafting, revising, editing, and publishing through writing workshop, literature focus units, and thematic units as well as through the content areas. Both writing assessment with rubrics and evaluation with portfolios are studied. Students compose both expository and expressive pieces as well as design and micro teach mini lessons and a web-based integrated writing unit. Graded A,B,C,D,F,P,W. Prerequisite: LIST 5346 or LIST 5381 and LIST 5382

### **LIST5385 – DESIGNING LITERACY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

This course is designed to build on the LIST 5325, Understanding Literacy Research, by providing an exploration of the process for quantitative, mixed methods or qualitative research design. Includes an examination of various research designs related to language and literacy development including models such as case studies, ethnography, observations and interviews. Students are lead through the research process including forming a theoretical epistemology, formulating research questions, reviewing literature, selecting methods of data collection, interpretation and analysis of data and writing a research proposal. Students will be expected to complete this research focus in the program capstone experience, LIST 5317. This course should immediately precede LIST 5317. Prerequisite: LIST 5325.

### **LIST5390 – SELECTED TOPICS IN READING**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics each semester, with a focus on subjects related to reading, writing, oral language, and literacy.

### **LIST5391 – INDEPENDENT RESEARCH IN READING**

**3** Lecture Hours · **0** Lab Hours

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

## **LISTIR Courses**

### **LISTIR5391 – INDEPENDENT RESEARCH IN READING**

**3** Lecture Hours · **0** Lab Hours

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

## **MAED Courses**

### **MAED5351 – WHOLE NUMBERS, RATIONAL NUMBERS, & OPERATIONS**

**3** Lecture Hours · **0** Lab Hours

In this course students engage in activities and problem solving on concepts related to whole numbers, rational numbers and operations. Students in the course will learn to utilize research-based, problem-based teaching methods to promote K-12 student understanding. Students will experience how K-12 students learn these concepts as they themselves engage in computation and problem solving activities transferrable to classroom practice. In this course, students will engage in experiences to learn and teach their K-12 students on using numbers, number systems and their structure, operations and algorithms, quantitative reasoning, and technology.

## **MAED5352 – PATTERNS & ALGEBRA**

**3** Lecture Hours · **0** Lab Hours

This course engages students in problem-based teaching and curriculum development to help children learn problem solving and critical thinking with an emphasis on patterns, relations, functions, algebraic reasoning, analysis, and technology. The course incorporates research shown effective in helping children develop necessary skills for algebraic reasoning as a foundation for higher level mathematics learning.

## **MAED5353 – PROBABILITY & STATISTICS**

**3** Lecture Hours · **0** Lab Hours

In this course students will engage in learning experiences and readily usable curricula for teaching K-12 students concepts of probability and statistics, their applications, and technology. Students will examine K-12 student learning and research-based practices that best help them understand these mathematical concepts and that will promote their development of probabilistic reasoning abilities.

## **MAED5354 – PROBLEM SOLVING**

**3** Lecture Hours · **0** Lab Hours

In this course, students experience and practice innovative curricula for teaching and learning problem solving. Students engage in hands-on activities and apply various problem solving techniques, using mathematical processes to reason mathematically, to solve mathematical problems, to make mathematical connections within and outside of mathematics, and to communicate mathematically. Students learn to identify relevant and irrelevant variables in problems and work through problems to arrive at meaningful solutions. Students examine research on ways to help K-12 students become effective problem solvers as transferrable to other mathematics topics and subjects across the curriculum.

## **MAED5355 – CONCEPTUAL GEOMETRY**

**3** Lecture Hours · **0** Lab Hours

In this course students will experience and incorporate active learning curricula that utilize a variety of manipulative materials, diagrams, models, and pictures to study geometry and spatial reasoning. The students will learn effective, research-based practices for teaching geometry and examine ways to best help K-12 students build geometric and spatial understandings as a foundation for later, more complex abstract visualizations.

## **MAED5356 – MEASUREMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on inquiry-based, problem-based curricula that help K-12 students learn concepts of measurement including units of measure, standardization, and error. Students will learn to use teaching techniques that will promote K-12 students' understanding as well as the application of measurement concepts to other subjects and to everyday life experiences.

## **SCED Courses**

### **SCED5351 – PHYSICAL SCIENCE - PROPERTIES AND CHANGES IN MATTER**

**3** Lecture Hours · **0** Lab Hours

This course provides an in depth study of the properties and changes in matter and how to teach these concepts to students in grades K-12 science. Students study matter by engaging in inquiry and field/laboratory investigations using scientific processes, critical thinking, and problem solving. The course will help students learn to teach these physical science concepts to K-12 students using inquiry models.

### **SCED5352 – PHYSICAL SCIENCE - FORCE & ENERGY**

**3** Lecture Hours · **0** Lab Hours

In this course, students gain scientific knowledge about characteristics and interactions among matter, force, and energy with interdisciplinary and everyday life connections. Topics experienced through laboratory/field based investigations include: gravity, work, friction, acceleration, volume, length, distance, light, forms of energy, electricity, heat, and simple machines. The course will help students learn to teach these physical science concepts to K-12 students using inquiry models.



## **SCED5353 – EARTH SCIENCE - STRUCTURES, MOVEMENT, & CHANGES IN EARTH & SPACE**

**3** Lecture Hours · **0** Lab Hours

Through laboratory investigations, students gain knowledge of the various constructive and destructive forces that shape and alter the Earth's surfaces such as plate tectonics, volcanoes, earthquakes, erosion, weathering and deposition, as well as conservation of resources. The course will include studies of rock identification, and the rock cycle, as well as geologic time and the fossil record. The course includes study of earth, moon and planetary characteristics and motions. The course will enable students to teach these earth science concepts to K-12 students using inquiry models.

## **SCED5354 – EARTH SCIENCE - WATER PROPERTIES, DISTRIBUTION, THE WATER CYCLE, & WEATHER**

**3** Lecture Hours · **0** Lab Hours

Students gain understanding of the importance of water including the topics of cohesion, adhesion, surface tension, and capillary action. Water distribution on Earth is analyzed using maps and charts, with connections to geographic and climatic characteristics of the various regions. Water, as a major factor in weather, along with other meteorological variables such as air pressure, humidity, dew point, and cloud formation will be studied and weather patterns will be tracked over time using technology and maps. The course will provide students with the knowledge and skills required to teach these earth science concepts to K-12 students using inquiry models.

## **SCED5355 – LIFE SCIENCE - UNITY & DIVERSITY OF LIFE & LIFE PROCESSES**

**3** Lecture Hours · **0** Lab Hours

This course will explore living organisms and classification of organisms. The course will focus on the unity of life including the cell and cell components and the life functions, as well as the diversity of life including a look at pathogenic agents including bacteria and viruses. The course will analyze the structure and function of DNA and genetics. The course will include comparative anatomy and physiology studies of organisms. Students will learn how to teach these life science concepts to K-12 students using inquiry models.

## **SCED5356 – LIFE SCIENCE - CYCLES IN NATURE, ADAPTATIONS, AND ENVIRONMENTAL SCIENCE**

**3** Lecture Hours · **0** Lab Hours

This course analyzes life, biochemical, and geochemical cycles within the natural world and how they impact ecological systems and environment. Students conduct laboratory and field investigations to examine and recognize various plant and animal adaptations. Science topics include camouflage, mimicry, body coverings, mouthparts, habitats. Math-science integrations include estimations, relationships, graphing, and number sense. Inquiry models will be used to help students learn to teach these life science concepts to K-12 students.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
    - Curriculum and Instruction
    - Educational Leadership and Policy Studies
    - Kinesiology
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Educational Leadership and Policy Studies

College of Education and Health Professions

### Chair Casey Brown

Web [www.uta.edu/coed/educleadership/](http://www.uta.edu/coed/educleadership/)

Email [education@uta.edu](mailto:education@uta.edu)

Phone 817.272.2591

Fax 817.272.2530

105 Trimble Hall

---

### Degrees / Certificates

#### Master's Degrees

Accelerated Online Ed. Leadership & Policy Studies, M.Ed. Non Thesis  
Ed. Leadership & Policy Studies, M.Ed.

#### Doctoral Degrees

Ed. Leadership & Policy Studies (K-16), Ph.D.

#### Certificates

Accelerated Online Ed. Leadership & Policy Studies, Superintendent  
Ed. Leadership & Policy Studies, Certification Only  
Principal Certificate  
Superintendent Certificate

---

### Graduate Faculty

[Casey Brown](#)  
[Bradley Davis](#)  
[Taryn Ozuna](#)  
[Daniel B Saunders](#)  
[Maria Trache](#)  
[Yi Zhang](#)

#### Professor

[Jeanne Gerlach](#)

#### Associate Professor

[Carrie Ausbrooks](#)  
[James Hardy](#)  
[Rhonda McClellan](#)  
[Lewis Wasserman](#)

#### Assistant Professor

[Ifeoma Amah](#)  
[Barbara Tobolowsky](#)

#### Assistant Clinical Professor

[Ernest Johnson](#)

**Senior Lecturer**  
**Kent Gardner**

**Lecturer**  
**Harold Smith**

**Special Assistant**  
**Ronald Caloss**

---

## Graduate Advisors

**Casey Brown**  
*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Ernest Johnson**  
*Ed. Leadership & Policy Studies, M.Ed.*

**Barbara Tobolowsky**  
*Ed. Leadership & Policy Studies (K-16), Ph.D.*

---

## Department Information

### Courses

# Department Information

### Admissions Requirements - Master's Program

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Denied Admission**

### Programs

- **Master's Degree with Principal Certification Courses**
- **Principal Certification Preparation Only (PCO)**
- **Probationary Principal Certificate**
- **Superintendent Certificate**
- **Master of Education in Educational Leadership and Policy Studies, with Principal Certificate**
- **Master of Education in Educational Leadership and Policy Studies, with Principal Certificate, Dual-Language Emphasis**
- **Master of Education in Educational Leadership and Policy Studies, with Higher Education Administration Emphasis**
- **Principal Certification Preparation Only** (for students who already have a master's degree)
- **Superintendent Certificate**
- **Coursework and Degree Completion Requirements**
- **Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies**

## Admissions Requirements - Master's Program

### Unconditional Admission

Applicants are typically offered unconditional admission if they meet two of the three following criteria:

- An undergraduate grade point average (GPA) of 3.0 or higher on a 4.0 scale, as calculated by the Graduate School or a graduate GPA of 3.5 or higher on a 4.0 scale on 12 or more hours as calculated by the Graduate School may be used in lieu of the undergraduate GPA
- A minimum of two of the following three Graduate Record Examination (GRE) scores: (1) verbal minimum score of 153, (2) quantitative score of 144, (3) written analytical minimum score of 3.5. For exams taken before August 1, 2011, a minimum of two of the three scores are required: (1) verbal minimum score of 500, (2) quantitative minimum score of 500, (3) written analytical minimum score of 3.5.
- 3 letters of reference on file, completed by three persons who can assess the applicant's aptitude, academic skills, and abilities needed for success in the Educational Leadership and Policy Studies master's program

### Probationary Admission

Applicants are typically offered probationary admission if they meet two of the three following criteria:

- An undergraduate grade point average (GPA) of at least 2.8 on a 4.0 scale, as calculated by the Graduate School or a graduate GPA of 3.3 or higher on a 4.0 scale on 12 or more hours as calculated by the Graduate School may be used in lieu of the undergraduate GPA
- A minimum of two of the following three Graduate Record Examination (GRE) scores: (1) verbal minimum score of 146, (2) quantitative score of 140, (3) written analytical minimum score of 3.0. For exams taken before August 1, 2011, a minimum of two of the three scores are required: (1) verbal minimum score of 400, (2) quantitative minimum score of 400, (3) written analytical minimum score of 3.0.
- 3 letters of reference on file, completed by three persons who can assess the applicant's aptitude, academic skills, and abilities needed for success in the Educational Leadership and Policy Studies master's program

**Terms of Probation upon Acceptance:** All students admitted under probation status will be required to earn a 3.5 GPA during the first 12 hours of graduate coursework in the program.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admissions deadline, but whom otherwise appears to meet admissions requirements may be granted provisional admission.

### Deferred Admission

An applicant's admission may be deferred when a file is not complete or when denying admission is not appropriate.

### Denied Admission

An applicant may be denied admission if the conditions for unconditional and probationary admission have not been met.

In addition, if a student has been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons, that student may be denied admission or readmission to an educator preparation program in the College of Education and Health Professions.

## Programs

The Department of Educational Leadership and Policy Studies offers the Master of Education (M.Ed.) in Educational Leadership and Policy Studies. In addition to core courses in educational leadership and policy studies, three distinct emphases are available: Principal Certificate, Principal Certificate with Dual Language, and Higher Education Administration. For those with a master's degree, the Department offers certification preparation courses for candidates seeking a Principal Certificate or a Superintendent Certificate.

### Master's Degree with Principal Certification Courses

The Master's Degree includes courses required for candidates seeking the Texas Principal Certification. In addition to obtaining the Master's Degree, candidates must also pass the Texas Principal Certification exam, have a valid Texas Teacher Certificate, and have at least two years of accredited classroom teaching experience. Candidates must have their school district send via U.S. mail (not fax) their official Texas Teacher Service Record to the Certification Officer in the UT Arlington College of Education and Health Professions. Courses for the Master's Degree are offered at both the UT Arlington and the Fort Worth Santa Fe campuses. The Department also offers the Master's Degree with Principal Certification courses entirely on-line through Academic Partnerships.

### Principal Certification Preparation Only (PCO)

For students with a Master's Degree, the Department has a Principal Certification Only (PCO) program that is 21 hours (seven courses). These candidates must also pass the Texas Principal Certification exam, have a valid Texas Teacher Certificate, and have at least two years of accredited classroom teaching experience. Candidates must have their school district send via U.S. mail (not fax) their official Texas Teacher Service Record to the Certification Officer in the UT Arlington College of Education and Health Professions. Courses for the Master's Degree are offered at both the UT Arlington and the Fort Worth Santa Fe campuses. The PCO program is not available online through Academic Partnerships.

### Probationary Principal Certificate

A candidate who has completed (grades posted) all requirements (EDAD 5360, 5381, 5383, 5384) and is enrolled in 5389 Practicum or 5399 Capstone Practicum may apply for the Probationary Principal Certificate. In order for UT Arlington to recommend a candidate for the Probationary Principal Certificate, the candidate must have a district administrative/practicum employment assignment. The Probationary Principal Certificate issued by the state is valid for one year from the date of issuance, renewable annually for 2 consecutive years for a maximum of 3 years total.

Principal certification candidates on a Probationary Principal Certificate must maintain continual enrollment in the Educational Leadership and Policy Studies department by taking EDAD 5389 or an equivalent course approved by the ELPS faculty graduate advisor. This applies to all of the three years allowed for probationary certificates.

For more information on how to apply, contact the College of Education and Health Professions Certification Office.

### Superintendent Certificate

The Department of Educational Leadership and Policy Studies offers coursework and practicums leading to a Superintendent Certificate. Upon completion of superintendency coursework, Texas administrators seeking a Texas Superintendent Certificate must make a passing score on the Superintendent Texas Examination of Educator Standards (TExES) and provide evidence of Principal or equivalent certification before they will be recommended to the State Board for Educator Certification (SBEC) for issuance of the certificate.

Required EDAD courses for the Superintendent Certificate: 6179, 6279, 6371, 6373, 6374, and 6378. Currently, courses are offered in an online-only format through Academic Partnerships.

## Master of Education in Educational Leadership and Policy Studies, with Principal Certificate

### Core Courses - 18 credit hours

EDAD 5322: Educational Research and Evaluation  
EDAD 5360: Leadership Theory  
EDAD 5365: Leading Change in Learning Organizations  
EDAD 5380: Diversity and Equity in Education  
EDAD 5388: Policy and Politics in Education  
EDAD 5399: Capstone Practicum in Educational Leadership and Policy Studies

### Principal Certificate Courses - 18 credit hours

EDAD 5305: Curriculum Development and Supervision  
EDAD 5330: Leadership in the Instructional Setting  
EDAD 5381: Political and Legal Aspects of Education  
EDAD 5383: The Principalship  
EDAD 5384: Resource Management in Education  
EDAD 5389: Practicum

**Degree Total (minimum): 36 credit hours**

## Master of Education in Educational Leadership and Policy Studies, with Principal Certificate, Dual-Language Emphasis

### Core Courses - 18 credit hours

EDAD 5322: Educational Research and Evaluation  
EDAD 5360: Leadership Theory  
EDAD 5365: Leading Change in Learning Organizations  
EDAD 5380: Diversity and Equity in Education  
EDAD 5388: Policy and Politics in Education  
EDAD 5399: Capstone Practicum in Educational Leadership and Policy Studies

### Principal Certificate/Bilingual Courses - 18 credit hours

BEEP 5321: English Language Learning Methods EC-6  
EDAD 5330: Leadership in the Instructional Setting or EDAD 5383: Principalship  
EDAD 5381: Political and Legal Aspects of Education  
BEEP 5366: Enhancing Spanish Proficiency  
BEEP 5318: Foundations of Bilingual Education  
BEEP 5365: Organization and Administration of Dual Language Programs

**Degree Total (minimum): 36 credit hours**

## Master of Education in Educational Leadership and Policy Studies, with Higher Education Administration Emphasis

### Core Courses - 18 credit hours

EDAD 5322: Educational Research and Evaluation  
EDAD 5360: Leadership Theory  
EDAD 5365: Leading Change in Learning Organizations  
EDAD 5380: Diversity and Equity in Education  
EDAD 5388: Policy and Politics in Education  
EDAD 5399: Capstone Practicum in Educational Leadership and Policy Studies

### Higher Education Emphasis Courses - 18 credit hours

EDAD 5305: American College Student Experience  
EDAD 5351: Higher Education Administration and Student Affairs  
EDAD 5352: Higher Education Law  
EDAD 5354: The American Community College  
EDAD 5356: History, Principles, and Philosophy of Higher Education  
EDAD 5357: Higher Education Trends/Issues

**Degree Total (minimum): 36 credit hours**

**Principal Certification Preparation Only (for students who already have a master's degree)**

**Core Courses - 15 credit hours**

EDAD 5365: Leading Change in Learning Organization  
EDAD 5330: Leadership in the Instructional Setting  
EDAD 5381: Political and Legal Aspects of Education  
EDAD 5383: The Principalship  
EDAD 5384: Resource Management in Education

**Practicum Courses - 6 credit hours**

EDAD 5389: Administrative Practicum  
EDAD 5399: Capstone Practicum

**Certification Total: 21 credit hours**

**Superintendent Certificate**

**Core Courses - 12 credit hours**

EDAD 6373: The Superintendency  
EDAD 6371: Administration of Staff, Personnel, and Advanced School Law  
EDAD 6378: Advanced Curriculum and Program Assessment  
EDAD 6374: Advanced School Business Administration

**Practicum Courses - 3 credit hours**

EDAD 6279: Superintendent Practicum I  
EDAD 6179: Superintendent Practicum II

**Certification Total: 15 credit hours**

Refer to Department Guidebook or advisors for sequence of courses.

**Coursework and Degree Completion Requirements**

The Department of Educational Leadership and Policy Studies offers two routes to earn the Master of Education in Educational Administration (M.Ed.) and Principal Certification: the self-paced program, and several cohort programs (i.e. groups of candidates following the same sequence of courses). The Department also offers courses for candidates seeking Superintendent Certification.

**Coursework and completion requirements**

- Coursework that is more than six years old at the time of graduation or teacher/administrator certification program completion cannot be used toward meeting the requirements for a master's degree or graduate-level certification.
- Master's degree and graduate level certificate programs must be completed within six years (time in military service excluded) from initial registration in the Office of Graduate Studies.
- Appropriate state exams and application to the State Board for Educator Certification for a standard certificate must be made within six months of completion of residency/practicum/program. If a candidate allows the six month period to go by without passing all state exams and applying for certification, additional coursework and/or state exams will be required.
- All transfer credits must be approved by the Faculty Advisor.
- Each candidate in the College of Education and Health Professions of UT Arlington will be evaluated on **professional dispositions** by faculty and staff. These dispositions have been identified as essential for a highly-qualified professional. Instructors and program directors will work with candidates rated as "unacceptable" in one or more stated criteria. The candidate will have an opportunity to develop a plan to remediate any digressions.



## Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies

The Ph.D. degree is designed for candidates who seek to enter careers in research, institutional assessment, policy analysis, institutional leadership, or the professoriate. The program challenges the conventional wisdom that higher education and K-12 education are different worlds by bringing together scholars and students from all levels of education to work and study together. Particularly, the program focuses on narrowing achievement gaps by studying and creating efficacious transitions within the educational experience. Working from the premise that all people can learn at high levels, the program includes the study of the systemic barriers at all levels of education that prevent so many children, adolescents, and young adults from being as successful as they can possibly be.

In addition to becoming experts in their particular area of inquiry, graduates will have a broad foundation in the study of educational leadership and policy at all levels. Students in the Ph.D. program will be part of a cohort throughout their coursework.

### Admission Requirements - Ph.D. Program

A select number of qualified applicants are admitted each session to the cohort-based program. Each cohort begins coursework during the fall semester. Specific guidelines for applying to this program are found on the departmental website. Admission into this program is very competitive. The departmental admissions committee considers prior educational experiences, prior work experiences, GRE scores, writing samples, and professional references. Finalists may be invited to campus to interview with the committee.

In addition to the general Office of Graduate Studies admission requirements, applicants must meet the following requirements for unconditional admission.

- Master's degree in education or other field appropriate for the doctorate in Educational Leadership and Policy Studies
- Grade point minimum average of 3.5 out of a possible 4.0 from the master's degree
- Successful applicants for unconditional admission are expected to present a minimum of two of the following three Graduate Record Examination (GRE) scores: (1) verbal minimum score of 153, (2) quantitative score of 144, and (3) written analytical minimum score of 4. For exams taken before August 1, 2011, a minimum of two of the three scores are required: (1) verbal minimum score of 500, (2) quantitative minimum score of 500, and (3) written analytical minimum score of 4.
- Applicants who do not meet the minimum score requirement for a standardized test will be considered for probationary admission status when other factors are taken into account in a holistic review.
- A minimum score of 550 on the Test of English As a Foreign Language (TOEFL) for applicants whose native language is not English
- At least three years of documented experience in a work environment in which the primary professional responsibility at any level has been education (e.g., teaching, administration, curriculum development, professional development, post secondary education, government or private industry settings)
- Admission is very competitive. Meeting admission standards does not guarantee admission to the program.
- Applicants who have been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons may be denied admission or readmission to an educator preparation program in the College of Education and Health Professions.

### Required Courses (51 hours)

#### 1. Research Methods Core (12 hours)

EDAD 6304: K-16 Quantitative Research Design & Methodology

EDAD 6308: K-16 Qualitative Research Design & Methodology



EDAD 6310: Statistical Methods  
EDAD 6315: Advanced Statistical Methods  
EDAD 6318: Advanced Qualitative Research

**2. Foundations Core (3 hours)**

EDAD 6320: K-16 Philosophy & History Policy Research

**3. Policy Research Core (9 hours)**

EDAD 6325: K-16 Policy Analysis Research  
EDAD 6330: K-16 Legal Policy Research  
EDAD 6335: K-16 Accountability Policy Research

**4. Leadership Research Core (9 hours)**

EDAD 6340: K-16 Organizational Theory Research  
EDAD 6360: K-16 Leadership Theory  
EDAD 6365: K-16 Leading Learning Organizations Research

**5. Research Practicum (6 hours)**

EDAD 6380: K-16 Research Practicum I  
EDAD 6385: K-16 Research Practicum II

**6. Comprehensive Examination (0 hours)**

EDAD 6098: K-16 Comprehensive Examination

**7. Dissertation (9 semester credit hours minimum) selected from:**

EDAD 6399: K-16 Dissertation  
EDAD 6699: K-16 Dissertation

**Elective Courses (15 hours)**

**1. Topical Courses (3 hours)**

EDAD 6390: Selected Topics in K-16 Educational Leadership Research  
or  
EDAD 6392: Selected Topics in K-16 Educational Policy Research

**2. Approved Electives (12 hours)**

**Written and Oral Comprehensive Examinations**

To be elevated to candidacy for the Ph.D., students must successfully pass written and oral comprehensive examinations.

**Dissertation**

Students elevated to candidacy for the Ph.D. may register for the dissertation. The dissertation is the culmination of the Ph.D. program and represents a distinct contribution to the field of knowledge. A dissertation defense is required.

## EDAD Courses

### EDAD5190 – SELECTED TOPICS IN EDUCATION

1 Lecture Hour · 0 Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### EDAD5191 – INDEPENDENT RESEARCH

1 Lecture Hour · 0 Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDAD5199 – PROBATIONARY CERTIFICATION INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

This course provides mentoring and supervision to UTA Educational Leadership and Policy Studies students employed as assistant principals or principals while on a Probationary Certificate and not enrolled in either EDAD 5389 or EDAD 5399. Individuals must reenroll in EDAD 5199 while on probation, which is initially issued for one calendar year.

### **EDAD5290 – SELECTED TOPICS IN EDUCATION**

**2** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDAD5291 – INDEPENDENT RESEARCH**

**2** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDAD5302 – EDUCATIONAL TECHNOLOGY PLANNING**

**3** Lecture Hours · **0** Lab Hours

This course is designed to help prepare future educational administrators in assessing, revising, or developing a technology plan for their school, district, or campus. Students will explore the overall concepts of technology, new applications of technology, and how they apply to educational standards, such as the National Educational Technology Standards for Teachers (NETS-T) and the Technology Standards for School Administrators (TSSA).

### **EDAD5303 – TEACHER LEADERSHIP FOR SCHOOL IMPROVEMENT**

**3** Lecture Hours · **0** Lab Hours

Examine formal/informal leadership in schools emphasizing the roles and contributions of teachers as leaders of instructional improvement at the classroom and school levels. Study organizational dynamics and school culture from theoretical and practical perspectives for improving teaching and learning. Develop leadership strategies for shaping professional learning communities.

### **EDAD5304 – DATA-DRIVEN ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Examine the impact of national and state-level education standards on curriculum and instruction. Examine the structure and uses of both standardized and informal assessments. Examine methods for using assessment data to design differentiated instruction that meets varying student needs.

### **EDAD5305 – CURRICULUM DESIGN, IMPLEMENTATION, AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation. Emphasis on current trends in the content areas.

### **EDAD5306 – COACHING AND CONSULTATION SKILLS**

**3** Lecture Hours · **0** Lab Hours

Examine various methods of coaching at the individual teacher, grade-level or subject-area team, and whole-school levels. Includes in-class instructional demonstrations, teacher observations and providing feedback, coaching through team meetings, and providing whole-school professional development. Also effective ways of including school administrators in instructional improvement.

### **EDAD5307 – TEACHER LEADERSHIP POLICY TRENDS AND ISSUES**

**3** Lecture Hours · **0** Lab Hours

Examines current national and state-level trends and policies in teacher leadership. Reviews research on the effects of various models of teacher leadership on instructional improvement.

### **EDAD5309 – ADVANCED INSTRUCTIONAL STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

A study of advanced models of teaching, including concept attainment, inductive thinking, inquiry, cognitive growth, non-directive group investigation, laboratory training, simulation and the training model. Research in teacher effectiveness and demonstration of various models will be required.

### **EDAD5315 – RESEARCH PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Examination of basic concepts and procedures necessary for empirical research investigations within classroom contexts, experimental design, data collection and interpretation, and statistical analysis.

### **EDAD5321 – EDUCATIONAL RES**

**3** Lecture Hours · **0** Lab Hours

### **EDAD5322 – EDUCATIONAL RESEARCH AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An overview of basic concepts and procedures necessary for analyzing, designing, and conducting quantitative and qualitative educational studies. Topics include familiarization with educational journals, associations, funding agencies, accreditation procedures, program evaluation, sampling procedures, data collection, and statistical analyses.

### **EDAD5330 – LEADERSHIP IN THE INSTRUCTIONAL SETTING**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement.

### **EDAD5350 – AMERICAN COLLEGE STUDENT**

**3** Lecture Hours · **0** Lab Hours

The purpose of the course is to explore and understand the nature, culture, and development of the American College Student. The course focuses on examining a range of development theories that offer insight into the processes of student learning, growth, and development during the college years.

### **EDAD5351 – HIGHER EDUCATION ADMINISTRATION AND STUDENT AFFAIRS**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to the organization, management, and philosophy of higher education administration and student affairs at post-secondary institutions. It explores the range of services and organizations associated with the wide-range of positions that exist in student and academic affairs and helps students gain a better understanding of the potential career opportunities that await them after graduation.

### **EDAD5352 – HIGHER EDUCATION LAW**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to provide students with the fundamental cases of higher education law for administrators. Topics of this course may include the legal structure of higher education, separation of church and state, religion, academic freedom, employment and tenure, due process, computer-related legal issues, copyright, students' rights of speech and expression, search and seizure, desegregation, tort

liability, contracts and collective bargaining.

### **EDAD5353 – HIGHER EDUCATION FINANCE**

**3** Lecture Hours · **0** Lab Hours

This course will provide knowledge of the theoretical basis for use of tax funds for education, student fees and tuition, state methods for financing, planning, cost benefit, budgeting, federal role, capital outlay, and the relationships between educational objectives and resource allocations.

### **EDAD5354 – THE AMERICAN COMMUNITY COLLEGE**

**3** Lecture Hours · **0** Lab Hours

This course will provide students with the philosophical and historical foundations of the American community college system. Students will explore current issues including, but not limited to, the evolution of the community college baccalaureate, principles of accreditation, institutional effectiveness, workforce development, and federal oversight of community colleges.

### **EDAD5355 – HIGHER EDUCATION CURRICULUM**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation in higher education settings. Emphasis will be on current trends in the content areas.

### **EDAD5356 – HISTORY, PRINCIPLES, AND PHILOSOPHY OF HIGHER EDUCATION ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This course is for current and prospective faculty, administrators, and staff seeking to learn about the American higher education system. The topics addressed include the history, recent developments, and strategies for future management and administration, finance, organization, governance, and the mission and role of higher education in American society.

### **EDAD5357 – HIGHER EDUCATION TRENDS AND ISSUES**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to key issues affecting higher education today. Through diverse and critical readings, the students explore issues such as access and equity, affirmative action, faculty, academic freedom, college costs, and strategic change.

### **EDAD5360 – LEADERSHIP THEORY**

**3** Lecture Hours · **0** Lab Hours

Leadership theories and the practice of leadership serve to focus this course designed to prompt self awareness as a school leader.

### **EDAD5363 – ADVANCED EDUCATIONAL RESEARCH**

**3** Lecture Hours · **0** Lab Hours

An in-depth coverage of selected topics in the design of research and the collection and analysis of data. Topics include multivariate analyses, experimental and quasi-experimental designs, development and selection of data collection instruments, focus group interviewing, observational research, the delphi method, and interpretive analysis.

### **EDAD5365 – LEADING LEARNING ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

The change process in educational settings serves to focus this course. Moving along the continuum of change theories, the planning, adoption, implementation and institutionalization of change are explored across public school and post-secondary learning organizations.

### **EDAD5376 – EDUCATIONAL GOVERNANCE**

**3** Lecture Hours · **0** Lab Hours

Focus on the appointed and elected entities and bureaucracies that determine and implement policy in public education.

### **EDAD5377 – CONTEMPORARY ISSUES IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An exploration of selected controversial issues in contemporary education. Symposium/seminar/lecture format.

### **EDAD5379 – SUPERINTENDENCY INTERNSHIP**

**0** Lecture Hours · **3** Lab Hours

Provides experiences in the various roles and responsibilities of a superintendent of schools under the direction of a school district mentor and a university supervisor. An internship project will be developed in consultation with public school and university personnel.

### **EDAD5380 – DIVERSITY AND EQUITY IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Effective leadership, instruction, and management strategies for work in diverse educational settings. Designed to provide increased self-awareness and insight into issues of diversity and equity such as culture, ethnicity, exceptionality, gender, language, and socioeconomic status. Demographic issues along with urban and suburban educational settings will also be addressed.

### **EDAD5381 – GOVERNANCE, POLITICAL AND LEGAL ASPECTS OF EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Focus on the legal foundation of public education, political theory, and application of political skills in working with school personnel, students, parents, and community organizations. The role of the law, court rulings, and the politics of school governance at the federal, state, and local levels will be addressed.

### **EDAD5382 – FOUNDATIONS OF EDUCATIONAL ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Will address the various aspects of instructional leadership roles and responsibilities of central office as well as building level administrators and supervisors. Topics included will be history of educational administration, educational philosophy, the global understanding of administrative roles in urban and rural settings, and professional organizations, as well as an overview of educational reforms, site-based management, governance, instructional management, evaluation, exchanging ideas, making changes, coaching beginning teachers, mentoring of teachers and peers, and a diverse community.

### **EDAD5383 – THE PRINCIPALSHIP**

**3** Lecture Hours · **0** Lab Hours

The Principalship will address the role of the campus leader in the leadership, organization and administration of schools. The importance of campus culture, climate, vision and ethics will be stressed throughout standards-based instruction, case studies, developmental activities, readings, reflections and field experiences. The importance of appropriate principal induction will be stressed along with the concepts of the principal as scholar-practitioner and proactive leader. An emphasis will be placed on continuous school improvement and a commitment to professional development.

### **EDAD5384 – RESOURCE MANAGEMENT IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

School finance, as well as auxiliary areas of resource management, will be addressed. The emphasis will be on the use of technology, alternative models of financing and budgeting, and sources of revenue from the federal, state, and local levels as well as from private sources. The course is designed to assist administrators in developing an understanding of the functions, operation, and evaluation of auxiliary

services which support the educational program.

### **EDAD5388 – EDUCATIONAL POLICY ISSUES IN THE PUBLIC SCHOOLS**

**3** Lecture Hours · **0** Lab Hours

Examination of positions on policy issues of importance in education.

### **EDAD5389 – ADMINISTRATIVE PRACTICUM**

**1** Lecture Hour · **15** Lab Hours

Designed to provide prospective educational administrators job-related experiences under supervision in an appropriate educational setting. An approved professional study is designed in relationship to the intern's interest and past experiences. Can be repeated for credit with approval of advisor.

### **EDAD5390 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDAD5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDAD5395 – FUTURISTIC LEADERSHIP ROLES IN SCHOOL ADMINISTRATION**

**5** Lecture Hours · **2** Lab Hours

Concepts and skills to prepare educational leaders for learner-centered schools and to anticipate and foster the professional development of all staff and parents in the learning community.

### **EDAD5399 – CAPSTONE PRACTICUM IN EDUCATIONAL LEADERSHIP AND POLICY STUDIES**

**1** Lecture Hour · **15** Lab Hours

The course focus will be on collaborative inquiry and action research in the individual classroom, team, school, and/or professional learning community. Each student will identify, research, design and initiate addressing a real problem at their work site. Students will leave this course and graduate from the program with a research presentation as part of their informal professional portfolio. Successful completion of the Capstone Internship will fulfill the comprehensive examination requirements for the graduate degree and/or certification. Requirements of EDAD 5399 will include, but not be limited to, those collaboratively established by University faculty and school administrative personnel.

### **EDAD6179 – SUPERINTENDENCY PRACTICUM**

**0** Lecture Hours · **1** Lab Hour

Provides experiences in the various roles and responsibilities of a superintendent of schools under the direction of a school district mentor and a university supervisor. An internship project will be developed in consultation with public school and university personnel.

### **EDAD6279 – SUPERINTENDENCY PRACTICUM**

**0** Lecture Hours · **2** Lab Hours

Provides experiences in the various roles and responsibilities of a superintendent of schools under the direction of a school district mentor and a university supervisor. An internship project will be developed in consultation with public school and university personnel. Prerequisite: permission of advisor.

## **EDAD6304 – K-16 QUANTITATIVE RESEARCH DESIGN & METHODOLOGY**

**3** Lecture Hours · **0** Lab Hours

Advanced course that covers the logic of research methods and design with an emphasis on empirical and other quantitative methods, including designing, conducting, and analyzing research from multiple paradigms. Emphasis will be placed on the steps involved in the administration of a research project including literature review, methodology, data collection and analysis, and presentation and publication in multiple media. State-of-the-art technology will be utilized.

## **EDAD6308 – QUALITATIVE RESEARCH DESIGN & METHODOLOGY**

**3** Lecture Hours · **0** Lab Hours

Research processes including developing interview questions, interviewing, coding/analyzing, interpreting data, theorizing, and reporting results, with participant observation as needed. Special focus on methods available to triangulate/verify data in order to confirm or achieve convergent validity. Establishing appropriate safeguards to ensure that findings are drawn from the data.

## **EDAD6310 – STATISTICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Statistical applications that emphasize sampling theory, normal, t, and F distributions, hypothesis tests, types of errors, power, analysis of variance for designs with one or more levels of classification, random effects and mixed models, comparisons among means, randomized block designs, designs with repeated measures including split-plot designs, zero-order correlation, and simple linear regression. More advanced principles of parametric and non-parametric statistics will also be emphasized. State-of-the-art technology will be utilized.

## **EDAD6315 – ADVANCED STATISTICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Review of correlation topics including zero-order, part and partial correlation, two variable linear regression theory, standard error of estimate, coefficient of determination, test for linearity of regression, relation of correlation ratio to analysis of variance, multiple correlation, point-biserial correlation, phi coefficient, tetrachoric correlation, canonical correlation, rank correlation, Fisher's Z and significance test for r, and effect size. Fundamentals of multiple regression including relationship to analysis of variance, and analysis of covariance. General introduction to factor analysis models, multiple analysis of variance, multiple analysis of covariance, and meta-analysis. Applicability to K-16 studies.

## **EDAD6318 – ADVANCED QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours

## **EDAD6320 – K-16 PHILOSOPHY & HISTORY POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Analysis of the roles of history, philosophy, culture, and values in shaping educational policy. Topics include the Greek Academies, the Medieval Universities, Progressivism, Neo-Conservatism, and Postmodern perspectives, as necessary antecedents to the K-16 movement. Detailed analysis of the roles, history, philosophy, culture, and values for public school and policy making within institutions of higher education.

## **EDAD6325 – K-16 POLICY ANALYSIS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A study of principles and practices involved in policy analysis research in educational settings.

## **EDAD6330 – K-16 LEGAL POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of the legal underpinnings of public K-16 education with particular emphasis on the United States Constitution. Attention will also be paid to varieties of statutory construction, the role of case law, and the significance of administrative decisions in the K-16 context. Legal implications of synergistic relationships spanning the K-16 context.



### **EDAD6331 – LEADERSHIP IN THE K-12 INSTRUCTIONAL SETTING**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement. For doctoral students only.

### **EDAD6335 – K-16 ACCOUNTABILITY POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A comprehensive course covering the research about and role of outcomes assessment in institutional accountability and accreditation. Addresses the relationship between outcomes assessment and strategic planning. Exploration of outcomes assessment in public schools and institutions of higher education.

### **EDAD6340 – K-16 ORGANIZATIONAL THEORY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

In depth study of theories of organizing , the ways in which they are evidenced in educational organizations and the ways in which they influence leaders and learning.

### **EDAD6345 – K-16 HUMAN RESOURCES LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Human resource needs in educational settings, including faculty and staff recruitment, selection, evaluation, retention, promotion, tenure, grievances, and leadership and personnel development.

### **EDAD6350 – K-16 CURRICULUM LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Foundations, principles, and issues of curriculum, including vertical alignment and the middle college concept. Exploration of curriculum development in both public schools and institutions of higher education. Analysis of the role of articulation agreements.

### **EDAD6351 – HIGHER EDUCATION AND STUDENT AFFAIRS ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to the organization, management, and philosophy of higher education administration and student affairs at post-secondary institutions. It explores the range of services and organizations associated with the wide-range of positions that exist in student and academic affairs and helps students gain a better understanding of the potential career opportunities that await them after graduation. For doctoral students only.

### **EDAD6352 – HIGHER EDUCATION LAW**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to provide students with the fundamental cases of higher education law for administrators. Topics of this course may include the legal structure of higher education, separation of church and state, religion, academic freedom, employment and tenure, due process, computer-related legal issues, copyright, students' rights of speech and expression, search and seizure, desegregation, tort liability, contracts and collective bargaining. For doctoral students only.

### **EDAD6353 – HIGHER EDUCATION FINANCE**

**3** Lecture Hours · **0** Lab Hours

This course will provide knowledge of the theoretical basis for use of tax funds for education, student fees and tuition, state methods for financing, planning, cost benefit, budgeting, federal role, capital outlay, and



the relationships between educational objectives and resource allocations. For doctoral students only.

### **EDAD6354 – AMERICAN COMMUNITY COLLEGE**

**3** Lecture Hours · **0** Lab Hours

This course will provide students with the philosophical and historical foundations of the American community college system. Students will explore current issues including, but not limited to, the evolution of the community college baccalaureate, principles of accreditation, institutional effectiveness, workforce development, and federal oversight of community colleges. For doctoral students only.

### **EDAD6355 – K-16 STUDENT SERVICES LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Analysis of the student services, co-curricular, extracurricular, and auxiliary enterprise functions of both public schools and institutions of higher education. Particular emphasis on the relationship with the institutions' stated curricula, purposes, and institutional missions.

### **EDAD6356 – HISTORY, PRINCIPLES, AND PHILOSOPHY OF HIGHER EDUCATION ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This course is for current and prospective faculty, administrators, and staff seeking to learn about the American higher education system. The topics addressed include the history, recent developments, and strategies for future management and administration, finance, organization, governance, and the mission and role of higher education in American society. For doctoral students only.

### **EDAD6357 – HIGHER EDUCATION TRENDS AND ISSUES**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to key issues affecting higher education today. Through diverse and critical readings, the students explore issues such as access and equity, affirmative action, faculty, academic freedom, college costs, and strategic change. For doctoral students only.

### **EDAD6358 – AMERICAN COLLEGE STUDENT**

**3** Lecture Hours · **0** Lab Hours

The purpose of the course is to explore and understand the nature, culture, and development of the American College Student. The course focuses on examining a range of development theories that offer insight into the processes of student learning, growth, and development during the college years. For doctoral students only.

### **EDAD6359 – HIGHER EDUCATION CURRICIULUM**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation in higher education settings. Emphasis will be on current trends in the content areas. For doctoral students only.

### **EDAD6360 – K-16 LEADERSHIP THEORY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Organizational leader behavior in K-16 settings with reference to interpersonal relationships, hierarchy, management style, and communication. Analysis of both classical and contemporary organizational theories, and their application in K-16 settings.

### **EDAD6365 – K-16 LEADING LEARNING ORGANIZATIONS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Building on organizational and leadership theories and their use in educational organizations, this course focuses on the study of change theory and its uses in leading learning organizations in times of change.

### **EDAD6371 – PERSONNEL & SCHOOL LAW**

**3** Lecture Hours · **0** Lab Hours

Focuses on understanding the relationship between motivation and the management of human resources; articulate the basics of team management and group facilitation; identify proper procedures for recruiting, assignment, and inducting personnel; and recognize the legal requirement for suspension, transfer, reduction in force and dismissal of professional personnel. Prerequisite: permission of advisor.

### **EDAD6373 – THE SUPERINTENDENCY**

**3** Lecture Hours · **0** Lab Hours

This course introduces candidates to the many facets of the superintendency with a focus on the challenges facing the superintendent today. Topics include: exercising collaborative leadership, developing a strong organizational culture, dealing with the politics of education, building strong superintendent-board relations, managing the problems of school reform, and planning. Instruction is problem-oriented and included field-based experiences.

### **EDAD6374 – ADVANCED SCHOOL BUSINESS ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Survey principles of public school finance at the local, state, and federal levels. Examines the school budgeting process, methods of school funds accounting and techniques of school business management. Prerequisite: permission of advisor.

### **EDAD6376 – EDUCATIONAL GOVERNANCE**

**3** Lecture Hours · **0** Lab Hours

Focus on the appointed and elected entities and bureaucracies that determine and implement policy in public education. For doctoral students only.

### **EDAD6378 – ADVANCED CURRICULUM AND PROGRAM ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on the processes of implementing district-wide curriculum, programs, and other innovations in school systems. Topics include: recent research on the implementation of change in curriculum and instruction, trends in education, strategic and contextual planning, program and student assessment and accountability, and national curriculum projects. Prerequisite: permission of advisor.

### **EDAD6380 – K-16 RESEARCH PRACTICUM I**

**10** Lecture Hours · **0** Lab Hours

An In depth research experience that provides an opportunity for participants to work with an experienced faculty researcher on cutting edge K-16-related research. The practicum experience will be personalized to best meet the individual student's needs, aptitudes, and aspirations in the context of the K-16 research arena.

### **EDAD6381 – POLITICAL AND LEGAL ASPECTS OF K-12 EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Focus on the legal foundation of public education, political theory, and application of political skills in working with school personnel, students, parents, and community organizations. The role of the law, Ct rulings, and the politics of school governance at the federal, state, and local levels will be addressed. For doctoral students only.

### **EDAD6383 – THE PRINCIPALSHIP**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement. For

doctoral students only.

### **EDAD6384 – RESOURCE MANAGEMENT IN K-12 EDUCATION**

**3** Lecture Hours · **0** Lab Hours

School finance, as well as auxiliary areas of resource management, will be addressed. The emphasis will be on the use of technology, alternative models of financing and budgeting, and sources of revenue from the federal, state, and local levels as well as from private sources. The course is designed to assist administrators in developing an understanding of the functions, operation, and evaluation of auxiliary services which support the educational program. For doctoral students only.

### **EDAD6385 – K-16 RESEARCH PRACTICUM II**

**10** Lecture Hours · **0** Lab Hours

A research experience in K-16 research that provides an opportunity for participants to experience the process research with an experienced university professional. The experience will be individualized to best meet the student's needs, aptitudes, and aspirations in the context of K-16 research.

### **EDAD6390 – SELECTED TOPICS K-16 EDUCATIONAL LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Topics will vary by semester, and may afford students the opportunity for choice within the cohort design. Selected topics courses will provide opportunities for faculty to teach courses in their area of expertise that meet students' needs, aptitudes, and aspirations. Examples of selected topics that may be offered in leadership research include: k-16 student judicial processes, K-16 academic program administration, and K-16 student information management systems. May be repeated for credit with permission of instructor.

### **EDAD6391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for independent study over topic agreed upon between student and instructor. Can be repeated for credit with permission. For doctoral students only.

### **EDAD6392 – SELECTED TOPICS K-16 EDUCATION POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Topics will vary by semester, and may afford students the opportunity for choice within the cohort design. Selected topics courses will provide opportunities for faculty to teach courses in their area of expertise that meet students' needs, aptitudes, and aspirations. Examples of selected topics that may be offered in leadership research include: K-16 governance, IDEA & ADA, and K-16 articulation. May be repeated for credit with permission of instructor.

### **EDAD6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree, and permission of major professor. Graded P/F.

### **EDAD6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree, and permission of major professor. Graded R/F/P/W.

### **EDAD6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree, and permission of major professor. Graded P/R/F.

## **EDAD7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **EDADIR Courses**

### **EDADIR5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

## **ELED Courses**

### **ELED5309 – TRENDS AND ISSUES IN EARLY CHILDHOOD EDUCATION**

**3** Lecture Hours · **0** Lab Hours

In-depth analysis of current research on issues in Early Childhood Education. Emphasis on the evaluation and impact of historical, political, and social policy; overview of legislation and advocacy on behalf of young children.

### **ELED5312 – EC6: INSTRUCTIONAL STRATEGIES IN SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Study of principles of integration of content in EC-6 classrooms with focus on science concepts and cognitive development. Emphasis on developing dispositions toward scientific inquiry and the use of appropriate objects, materials, activities, and programs to assist in the learning of science concepts.

### **ELED5315 – PRACTICUM**

**2** Lecture Hours · **0** Lab Hours

Practicum in student's teaching area(s). This semester-long experience will help students apply theory and research to practice.

### **ELED5317 – THEORIES OF CHILD DEVELOPMENT AND LEARNING**

**3** Lecture Hours · **0** Lab Hours

Human growth and development, including developmental anomalies, from birth through middle childhood with emphasis on cognitive, social, emotional, and physical growth. Attention is given to current research regarding establishment of learning environments that foster development of the child's self-concept, cognitive competencies, oral language and literacy development, and positive social behaviors including appreciation of diversity among individuals and groups.

### **ELED5318 – FOUNDATIONS IN EC6 EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An overview of historical and philosophical influences and current research in early and elementary education on promoting educational environments that support development of the whole child. Attention is

given to the development and implementation of appropriate EC-6 curricula and programs that extend and integrate learning experiences of children, including the home-school relationship.

### **ELED5319 – EC6 EDUCATION: INSTRUCTIONAL STRATEGIES IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Study of principles of integration of content in EC-6 classrooms with focus on mathematics concepts and cognitive development. Emphasis on developing dispositions toward the use of appropriate objects, materials, activities, and programs to assist in learning of mathematics concepts.

### **ELED5320 – EC6 EDUCATION: INSTRUCTIONAL STRATEGIES IN SOCIAL STUDIES AND THE CREATIVE ARTS**

**3** Lecture Hours · **0** Lab Hours

Study of principles of integration of content in EC-6 classrooms with focus on social studies, the creative arts, and cognitive and socio-emotional development. Emphasis on developing dispositions promoting awareness of self and others, and the study of group dynamics involved in the socialization process in a diverse community. Strategies for enhancing creativity and risk-taking characteristics in EC-6 classrooms.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
    - Curriculum and Instruction
    - Educational Leadership and Policy Studies
    - Kinesiology
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Kinesiology

College of Education and Health Professions

### Chair A Louise Fincher

### Chair David Keller

Web [www.uta.edu/coehp/kinesiology/ms/](http://www.uta.edu/coehp/kinesiology/ms/)

Email [ricard@uta.edu](mailto:ricard@uta.edu)

Phone 817.272.3288

Fax 817.272.3233

**147 Maverick Activities Center**

---

### Degrees / Certificates

#### Master's Degrees

Athletic Training, M.S. Non Thesis

Exercise Science, M.S.

#### Doctoral Degrees

Kinesiology BS to PHD-DB

Kinesiology-PhD

---

### Graduate Faculty

**Robert Brothers**

**Paul Fadel**

**Mark Haykowsky**

**Michael Nelson**

**Zui Pan**

#### Professor

**John Buckwalter**

**A Louise Fincher**

**Barry McKeown**

**Mark Ricard**

#### Associate Professor

**Paul McDonough**

**Larry Nelson**

**Cynthia Trowbridge**

**Judy Wilson**

#### Assistant Professor

**Priscila Cacola**

**Jean Hargreaves**

**David Keller**

**Rhonda Prisby**

**Christopher Ray**

**Jake Resch**

**Assistant Clinical Professor**  
**Paul Krawietz**

---

## Graduate Advisors

### **Robert Brothers**

*Athletic Training, M.S. Non Thesis*  
*Exercise Science, M.S.*  
*Exercise Science, Non-Degree Seeking*  
*Kinesiology BS to PHD-DB*  
*Kinesiology-PhD*

### **David Keller**

*Athletic Training, M.S. Non Thesis*  
*Exercise Science, M.S.*  
*Exercise Science, Non-Degree Seeking*

### **Paul Krawietz**

*Athletic Training, M.S. Non Thesis*

### **Mark Ricard**

*Exercise Science, M.S.*

---

## Department Information

### Courses

# Department Information

### **Master of Science in Athletic Training - Mission, Goals, and Outcome Measures**

- **Program Mission**

### **Admission Requirements**

- **Unconditional Admission**
- **Probationary Admission**
- **Retention Criteria**
- **Transfer Policy**
- **Waiver of the Graduate Record Examination**

### **Degree Requirements**

### **Master of Science in Exercise Science - Objective**

### **Admission Requirements**

- **Unconditional Admission**
- **Probationary Admission**
- **Waiver of the Graduate Record Examination**
- **Graduate Assistantships**

### **Degree Requirements**

For specific information regarding graduate study in the Department of Kinesiology, please contact

the Graduate Advisor at 817.272.3288 or by e-mail at [kinegradcoord@uta.edu](mailto:kinegradcoord@uta.edu).

## Master of Science in Athletic Training - Mission, Goals, and Outcome Measures

### Program Mission:

The mission of The University of Texas at Arlington Master of Science in Athletic Training (MSAT) program is to provide an active learning environment for students to acquire the critical thinking and clinical decision making skills necessary for a successful career in the ever evolving health care system.

The program of study leading to the Master of Athletic Training (MSAT) is designed to accomplish five major goals:

#### Program Goal #1:

To prepare students to pass the Board of Certification, Inc. (BOC) exam.

Outcome measure:

1. Overall BOC passing rates for program graduates.

#### Program Goal #2:

To prepare students to pass the Texas Advisory Board of Athletic Trainers' (TABAT) state licensure exam.

Outcome measure:

1. Overall TABAT passing rates for program graduates.

#### Program Goal #3:

Prepare students to achieve competence and strive for excellence in evidence-based clinical practice.

Outcome measures:

1. Psychomotor skill evaluations
2. Didactic and laboratory final exams
3. Simulated patient assessments
4. Overall clinical performance evaluations

#### Program Goal #4:

To prepare students to recognize the value and importance of promoting the athletic training profession.

Outcome Measures:

1. Percentage of current students who are actively involved in the Maverick Society of Athletic Training Students (MSATS).
2. Percentage of current students who are members of the National Athletic Trainers' Association (NATA) and the Southwest Athletic Trainers' Association (SWATA).
3. Percentage of program alumni who maintain the membership in the NATA, SWATA, and the Texas State Athletic Trainers' Association (TSATA).
4. Percentage of program alumni who are currently involved, or have been involved in the past, in professional service (committees, task forces, volunteer projects, etc.) to the NATA, SWATA, or TSATA.

#### Program Goal #5:



To facilitate students' efforts in locating and securing an athletic training job or placement in a graduate school.

Outcome measure:

1. Annual student placement rates.

## Admission Requirements

### Unconditional Admission

- Bachelor's Degree (preferably in Kinesiology, Exercise Science or related field).
- Admission to The University of Texas at Arlington.
- Submission of GRE scores (the following scores are preferred but not required:  
  
Verbal - 150 [450], Math 141 [450].
- Undergraduate GPA of 3.0 or 3.0 GPA during the last 60 hours of undergraduate work.
- Completion of Graduate Athletic Training Application.
- Interview with MSAT Admissions Committee.
- Completed Technical Standards Forms.
- Physical Exam and Immunization Records (including Hepatitis B)
- Current Health Care Provider CPR Certification (AHA).3 MSAT reference forms on file.
- Submit documentation of 25 hours of clinical observation in an athletic training setting.
- Meet application deadline of February 1st (or early deadline of December 1st for following summer admission).
- International applicants must meet the Office of Graduate Studies minimum scores for admission for the TOEFL, TSE, TOEFL iBT, and IELTS test: A score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section are required.

### Probationary Admission

Applicants failing to meet the unconditional admission criteria may be considered for probationary admission, in which case the following additional criteria will also be considered by the MSAT Admissions Committee:

- Professionally relevant experience.
- A sample of technical writing may be requested.
- Maintain a 3.0 GPA in the first two long (Fall and Spring) semesters of enrollment in the graduate program.

Required Prerequisites (grade of C or better)

- Care and Prevention of Injuries
- Anatomy and Physiology I and II
- Kinesiology/Biomechanics
- Physiology of Exercise
- Sports Nutrition

Preferred Prerequisites (grade of C or better)

- Physics I
- Chemistry I
- Medical Terminology

## Retention Criteria

MSAT students' academic and clinical progress will be closely monitored each semester by the MSAT Program Director and the MSAT Clinical Education Coordinator. In order to remain in the MSAT program, students must:

1. Maintain a cumulative GPA of 3.0 or higher.
2. Maintain a 3.0 GPA or higher in athletic training core courses.
3. Adhere to the NATA Code of Ethics and to the MSAT Policies and Procedure Manual.

\* Students who fail to meet the retention criteria will be placed on probation in the MSAT program for one semester. If standards are not met by the end of the probationary period, the student will be dismissed from the program. Students who earn a grade of C or lower in any required course must repeat that course and earn a grade of B or higher in order to remain in the program. Failure to repeat the course, or earn a grade of B or better, will result in dismissal from the program.

## Transfer Policy

Students may transfer up to six hours of elective graduate coursework. No transfer credit will be awarded for any of the athletic training core courses.

## Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates with a degree in Kinesiology or related fields (such as Biology, Chemistry, Mathematics, Nursing, Computer Science, or Engineering) may qualify for a waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.
2. The student's UT Arlington grade-point average must equal or exceed 3.0 in the following calculations:
  - As calculated for admission by the Office of Graduate Studies;
  - Overall;
  - In the major field; and
  - In all upper-division work.

Applicants qualifying for waiver of GRE who do not qualify for advance admission, must comply with all other requirements for admission, i.e., submitting the application, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waive must be recommended by the Graduate Advisor at the time of admission.

## Degree Requirements

All students accepted into the Master of Science in Athletic Training Program will complete 52 hours of coursework. Students then have the option of selecting 6-9 hours of electives.

### Required Coursework (46 hours)

The following courses will be required for completion of the MSAT degree program.  
Prefix and Number Required Courses SCH

KINE 5120 Clinical Experience I  
 KINE 5130 Clinical Experience II  
 KINE 5140 Clinical Experience III  
 KINE 5150 Clinical Experience IV  
 KINE 5160 Clinical Experience V  
 KINE 5220 Preventative Techniques in Athletic Training  
 KINE 5300 Research Methods in Kinesiology  
 KINE 5305 Applied Statistical Principles in Kinesiology  
 KINE 5329 Strength and Conditioning  
 KINE 5333 Health Care Administration  
 KINE 5334 Seminar in Athletic Training  
 KINE 5420 Concepts in Athletic Training  
 KINE 5430 Orthopedic Assessment I  
 KINE 5431 Orthopedic Assessment II  
 KINE 5432 Pathophysiology and Pharmacology  
 KINE 5433 Therapeutic Interventions I  
 KINE 5434 Therapeutic Interventions II

The elective courses listed below are intended to provide MSAT students the opportunity to gain advanced knowledge in select areas related to athletic training. The independent research courses (KINE 5196, 5296, and 5396) are specifically designed to provide students with additional research experiences, particularly those students who may be interested in pursuing a doctoral degree.

#### **Prefix and Number Prescribed Elective Courses**

(Students will choose 6 hrs from the following):

KINE 5196 Research in Athletic Training  
 KINE 5197 Internship in Athletic Training  
 KINE 5296 Research in Athletic Training  
 KINE 5297 Internship in Athletic Training  
 KINE 5396 Research in Athletic Training  
 KINE 5397 Internship in Athletic Training  
 KINE 5320 Advanced Physiology of Exercise  
 KINE 5328 Neuromuscular Physiology of Exercise  
 KINE 5331 Obesity and Weight Management  
 KINE 5345 Sport Nutrition  
 KINE 5350 Applied Biomechanics

### **Master of Science in Exercise Science - Objective**

The program of study leading to the Master of Science (M.S.) in Exercise Science is designed to accomplish two major objectives:

1. To provide students with the academic and research skills needed for doctoral study in kinesiology, exercise science, physiology of exercise, postural control, athletic training or biomechanics.
2. To prepare students for employment in clinically-oriented environments that place an emphasis on research-based practice such as cardiac rehabilitation, strength and conditioning or sports medicine.

Current departmental faculty members have been academically trained in, and are actively publishing in the areas of physiology of exercise, postural control, athletic training, biomechanics, cardiovascular physiology, physical education (pedagogy), pulmonary physiology, motor-learning, and the general areas of allied health sciences. The ongoing research in these areas provides the primary focus for the M.S. program. Program graduates will be well prepared to work as researchers in laboratories and to enroll in doctoral programs in these content areas.

Students are encouraged to present their research at state and national meetings of the following organizations: American College of Sports Medicine (ACSM), National Athletic Trainers'

Association (NATA), National Strength and Conditioning Association (NSCA). The M.S. degree, combined with supervised clinical experience, will assist students in their preparation for national certification exams.

## Admission Requirements

### Unconditional Admission

1. Minimum GRE quantitative score of 144 (500 on old scale) and verbal score of 153 (500 on old scale).
2. 3.0 GPA for the degree and/or 3.0 GPA during the last 60 hours of undergraduate work.
3. Undergraduate and/or graduate course work related to kinesiology.
4. 3.0 GPA on all graduate work.
5. 3 letters of reference on file.
6. International applicants must meet the Office of Graduate Studies minimum scores for admission for the TOEFL, TSE, TOEFL iBT, and IELTS test: A score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section are required.
7. To be eligible for a graduate teaching assistantship, international students must submit a TSE score of at least 45, or a score on the Speaking section of the TOEFL iBT of at least 23 or a score of at least 7 on the Speaking section of the IELTS. Alternatively, students who have not taken the TSE, or who have failed to attain a score of 23 on the Speaking section of the TOEFL iBT or a score of 7 on the Speaking section of the IELTS, may achieve a score of at least 45 on the SEA examination administered by the University of Texas at Arlington's Assessment Services Office.

### Probationary Admission

Applicants failing to meet the unconditional admission GRE criteria or having a GPA less than 3.0 may be considered for probationary admission, in which case the following additional criteria will also be considered by the Graduate Studies Committee:

1. Professionally relevant experience
2. A sample of technical writing may be requested

Applicants admitted on probation will be required to maintain a B or better average during their first 9 hours of graduate study. A Graduate Advisor within the Department of Kinesiology will review transcripts of prospective students to determine what prerequisites are needed prior to enrollment in courses within the proposed program. If deficiencies are identified, a pre-program of study designed to prepare the student for graduate course prerequisites will be written and signed by the prospective student and the Graduate Advisor.

Applicants seeking admission to an educator preparation program in the College of Education and Health Professions may be denied admission or readmission to those programs if they have been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons.

### Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates with a degree in Kinesiology or related fields (such as Biology, Chemistry, Mathematics, Computer Science, or Engineering) may qualify for a waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program

(as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.

2. The student's UT Arlington grade-point average must equal or exceed 3.0 in the following calculations:
  - as calculated for admission by the Office of Graduate Studies;
  - overall;
  - in the major field; and
  - in all upper-division work.

Applicants qualifying for waiver of GRE who do not qualify for advanced admission, must comply with all other requirements for admission, i.e., submitting the application for admission, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waiver must be recommended by the Graduate Advisor at the time of admission.

### Graduate Assistantships

The Department of Kinesiology offers graduate teaching and graduate research assistantships. Assistantships are contingent upon prior acceptance to the Graduate School. Graduate Assistant applicant evaluation begins on February 1 and continues until all positions are filled. Please direct all inquiries to the graduate program director Dr. Mark Ricard at [ricard@uta.edu](mailto:ricard@uta.edu).

### Degree Requirements

All students accepted into the Master of Science in Exercise Science program will complete 36 hours of coursework consisting of 15-18 semester hours in exercise science, which includes completing either KINE 5389 Research Manuscript or KINE 5698 Thesis. Students then have the option of selecting 18-21 hours of electives. Detailed information concerning the plan of work is available on the Department of Kinesiology website: [www.uta.edu/coehp/kinesiology/ms](http://www.uta.edu/coehp/kinesiology/ms).

#### Required Coursework (15-18 hours)

KINE 5300 Research Methods in Kinesiology  
 KINE 5305 Applied Statistical Principles in Kinesiology  
 KINE 5320 Advanced Physiology of Exercise  
 KINE 5323 Motor Learning and Control

#### Choose one of the following

KINE 5389 Research Manuscript Submission  
 KINE 5698 Thesis

#### Elective Coursework (Choose 18 to 21 hours, based on thesis or non-thesis track)

KINE 5322 Metabolism and Exercise Biochemistry  
 KINE 5326 Cardiocirculatory Physiology of Exercise  
 KINE 5327 Pulmonary Physiology of Exercise  
 KINE 5328 Neuromuscular Physiology of Exercise  
 KINE 5329 Strength and Conditioning  
 KINE 5331 Obesity and Weight Management  
 KINE 5345 Sport Nutrition  
 KINE 5350 Applied Biomechanics  
 KINE 5390 Special Topics in Kinesiology  
 KINE 5393 Physiology of Exercise Internship  
 KINE 5394 Research in Kinesiology

Coursework that is more than six years old at the time of graduation or teacher/administrator certification program completion cannot be used toward meeting the requirements for a master's degree or graduate-level certification. Master's degree and graduate-level certification programs must be completed within six years (time in military service excluded) from initial registration in the Graduate School. Appropriate state exams and application to the State Board for Educator Certification for a standard certificate must be made within six months of completion of residency/practicum/program. If a candidate allows the six-month period to go by without passing all state exams and applying for certification, additional coursework and/or exams will be required.

## **KINE Courses**

### **KINE5120 – ATHLETIC TRAINING CLINICAL I**

**3** Lecture Hours · **0** Lab Hours

Clinical experiences performed in an athletic training setting or other health care facility under the supervision of a program approved health care provider.

### **KINE5125 – IMMUNOLOGY**

**1** Lecture Hour · **0** Lab Hours

This course will include a brief review of the immune system and factors that affect immune function with emphasis on the effect of exercise and stress on muscle and overall immune function. The effect of nutrition and over-training on the immune system and associated syndromes/diseases will also be presented.

### **KINE5130 – CLINICAL ATHLETIC TRAINING II**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisites: KINE 5420, KINE 5220, KINE 5120

### **KINE5140 – CLINICAL ATHLETIC TRAINING III**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisite: KINE 5130

### **KINE5150 – CLINICAL ATHLETIC TRAINING IV**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisite: KINE 5140

### **KINE5160 – CLINICAL ATHLETIC TRAINING V**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisite: KINE 5150

### **KINE5190 – SPECIAL TOPICS IN KINESIOLOGY**



**1 Lecture Hour · 0 Lab Hours**

In-depth study of selected topics in physical education and exercise science. May be repeated when topics vary. Prerequisite: consent of instructor.

### **KINE5191 – INTERNSHIP IN CARDIOPULMONARY REHABILITATION**

**1 Lecture Hour · 0 Lab Hours**

The student will complete 400 internship hours in an approved Cardiopulmonary rehabilitation setting. The student may take two semesters of KINE 5191 at 200 hours each. The student will be involved in patient/client assessment, training, rehabilitation, risk factor identification and lifestyle management services provided for individuals with or at risk for cardiovascular, pulmonary, and metabolic diseases. In addition the student will observe common cardiac surgeries and diagnostic procedures to better understand the pathophysiology and treatment of cardiovascular, pulmonary and metabolic disease.

### **KINE5192 – INTERNSHIP IN GRADED EXERCISE TESTING FOR HIGH RISK POPULATIONS**

**1 Lecture Hour · 0 Lab Hours**

The student will complete 200 hours of graded exercise testing in an approved hospital or outpatient clinical setting which conducts exercise tests for high risk populations, including clients with suspected cardiopulmonary and metabolic diseases. The student will be exposed to noninvasive (echocardiography and graded exercise testing) and invasive methods used to diagnose cardiopulmonary and metabolic disease, including procedures conducted in cath and nuclear testing laboratories.

### **KINE5193 – PHYSIOLOGY OF EXERCISE INTERNSHIP**

**1 Lecture Hour · 0 Lab Hours**

Individualized academic training in an external professional exercise physiology setting (e.g., physical medicine, athletic training, external laboratory, health/fitness facility, professional teams or sports management) under the direct supervision of an exercise science professional.

### **KINE5194 – RESEARCH IN KINESIOLOGY**

**1 Lecture Hour · 0 Lab Hours**

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5195 – INTERNSHIP IN GRADED EXERCISE TESTING FOR HIGH RISK POPULATIONS**

**1 Lecture Hour · 0 Lab Hours**

The student will complete 200 hours of graded exercise testing in an approved hospital or outpatient clinical setting which conducts exercise tests for high risk populations, including clients with suspected cardiopulmonary and metabolic diseases. The student will be exposed to noninvasive (echocardiography and graded exercise testing) and invasive methods used to diagnose cardiopulmonary and metabolic disease, including procedures conducted in cath and nuclear testing laboratories.

### **KINE5198 – THESIS**

**1 Lecture Hour · 0 Lab Hours**

### **KINE5220 – PREVENTATIVE AND ACUTE CARE TECHNIQUES IN ATHLETIC TRAINING**

**1 Lecture Hour · 3 Lab Hours**

Classroom and laboratory experiences designed to provide students with formal instruction and evaluation in the prevention and acute care of activity related injuries and illnesses.

### **KINE5290 – SPECIAL TOPICS IN KINESIOLOGY**

**2 Lecture Hours · 0 Lab Hours**

In-depth study of selected topics in physical education and exercise science. May be repeated when topics vary. Prerequisite: consent of instructor.

### **KINE5291 – INTERNSHIP IN CARDIOPULMONARY REHABILITATION**

1 Lecture Hour · 0 Lab Hours

The student will complete 400 internship hours in an approved Cardiopulmonary rehabilitation setting. The student may take two semesters of KINE 5191 at 200 hours each. The student will be involved in patient/client assessment, training, rehabilitation, risk factor identification and lifestyle management services provided for individuals with or at risk for cardiovascular, pulmonary, and metabolic diseases. In addition the student will observe common cardiac surgeries and diagnostic procedures to better understand the pathophysiology and treatment of cardiovascular, pulmonary and metabolic disease.

### **KINE5292 – SPECIAL TOPICS IN KINESIOLOGY**

2 Lecture Hours · 0 Lab Hours

### **KINE5293 – PHYSIOLOGY OF EXERCISE INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Individualized academic training in an external professional exercise physiology setting (e.g., physical medicine, athletic training, external laboratory, health/fitness facility, professional teams or sports management) under the direct supervision of an exercise science professional.

### **KINE5294 – RESEARCH IN KINESIOLOGY**

2 Lecture Hours · 0 Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5298 – THESIS**

2 Lecture Hours · 0 Lab Hours

### **KINE5300 – RESEARCH METHODS IN KINESIOLOGY**

3 Lecture Hours · 0 Lab Hours

This course is an overview of concepts and procedures necessary for designing, conducting, and analyzing research in Kinesiology from multiple research paradigms. The course will focus on the steps involved in the administration of a research project, including literature review, design, data collection and analysis.

### **KINE5305 – APPLIED STATISTICAL PRINCIPLES IN KINESIOLOGY**

3 Lecture Hours · 0 Lab Hours

The course covers descriptive statistics, elementary probability, one- and two-population mean and variance comparisons, ANOVA, simple linear regression, and correlations. In addition, more advanced principles in parametric and non-parametric statistics will be emphasized.

### **KINE5320 – ADVANCED PHYSIOLOGY OF EXERCISE**

2 Lecture Hours · 2 Lab Hours

Lecture and laboratory sessions are designed to investigate concepts of energy metabolism, lactate production and accumulation, energy expenditure, excess post exercise oxygen consumption, cardiovascular and temperature regulation, neuromuscular control, aerobic and anaerobic adaptations and ergonomics.

### **KINE5322 – METABOLISM & EXERCISE BIOCHEMISTRY**

3 Lecture Hours · 0 Lab Hours

This course will address the regulation of exercise metabolism as well as the distinct biochemical pathways through which energy transduction occurs. This will allow the student to appreciate not only the end result



of metabolism, ultimately the production and maintenance of cellular ATP levels, but also the pathways that biological machines use to achieve ATP homeostasis. Calorimetry, respiratory exchange ratio, and substrate utilization during exercise will be assessed as part of the laboratory section of this course

### **KINE5323 – MOTOR CONTROL AND LEARNING**

**3** Lecture Hours · **0** Lab Hours

This course advances on fundamental concepts of motor behavior and performance combining theoretical principles to a variety of realistic contexts to provide the basis of skilled behavior. Contemporary research in human motor behavior models is used to identify effective solutions to practical problems and to spark ideas for optimizing development, learning, and control of motor skills.

### **KINE5326 – CARDIOCIRCULATORY PHYSIOLOGY OF EXERCISE**

**2** Lecture Hours · **3** Lab Hours

The structure and function of the cardiovascular and circulatory system will be studied, as well as, cardiac control, the cardiac cycle, cardiac output, hemodynamics, vascular resistance, arterial-venous oxygen difference and oxygen delivery and consumption. Heat production and thermal control during exercise will also be addressed in lecture and laboratory sessions.

### **KINE5327 – PULMONARY PHYSIOLOGY OF EXERCISE**

**3** Lecture Hours · **0** Lab Hours

Examines the structure and function of the pulmonary system including mechanics of breathing, lung capacity tests, pulmonary circulation, lung diseases, gas exchange, ventilation, diffusing capacity, acid/base balance, neural and chemical regulation of breathing, and blood flow with respect to rest and exercise values in healthy and diseased populations. Prerequisite: KINE 5320.

### **KINE5328 – NEUROMUSCULAR PHYSIOLOGY OF EXERCISE**

**2** Lecture Hours · **3** Lab Hours

The structure and function of muscle, including the motor unit, control and integration, central and peripheral modifiers of neuromuscular control and biochemical characteristics of fibers will be studied. These concepts will also be applied to concepts in strength and power development.

### **KINE5329 – STRENGTH & CONDITIONING**

**3** Lecture Hours · **0** Lab Hours

The course covers the physiology and biomechanics of strength training and conditioning. Additional topics include: testing and evaluation of athletes, resistance training techniques, training program design, and organization administration of a strength training facility. This course is designed to prepare students to take the CSCS certification examination. Prerequisite: current CPR certification, KINE 3300, KINE 3301, KINE 3315, or permission of the instructor.

### **KINE5331 – OBESITY & WEIGHT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course is a review of the scientific literature on the causes and consequences of obesity. Topics include techniques for assessing body composition, factors promoting fat metabolism and deposition, traditional and non-traditional weight-loss programs, and adherence to weight-loss programs. Offered as KINE 4331 and KINE 5331. Credit will be granted only once. Prerequisite: KINE 5320 or permission of department.

### **KINE5333 – HEALTH CARE ADMINISTRATION**

**2** Lecture Hours · **1** Lab Hour

A study of the administrative issues and management theories that may be encountered in overseeing an athletic training/sports medicine program. Special emphasis is placed on the practical application of concepts related to legal liability, facility design and maintenance, financial and budget management, common health insurance models, insurance contract negotiation, strategic planning as a means to assess and promote organizational improvement, the impact of organizational structure on the daily operations of a healthcare facility, components of developing and implementing a basic business plan, medical record and documentation systems, federal and state infection control regulations and guidelines, risk management

plan development, emergency action planning, and general day to day operations. Prerequisites: KINE 5431, KINE 5434, KINE 5432

### **KINE5334 – SEMINAR IN ATHLETIC TRAINING**

**3** Lecture Hours · **0** Lab Hours

Synthesis of theories and concepts in athletic training. Review of the competencies and proficiencies in athletic training with special emphasis on professional development and the refinement of clinical decision-making.

### **KINE5335 – GRADED EXERCISE TESTING AND PRESCRIPTION**

**2** Lecture Hours · **3** Lab Hours

The knowledge and skills necessary for assessment of health history and appraisal, blood pressure, electrocardiogram, cardiovascular fitness and function will be acquired in lecture and laboratory sessions. Various test modalities and protocols will be discussed for health and diseased populations.

### **KINE5336 – ECG INTERPRETATION**

**3** Lecture Hours · **0** Lab Hours

Principles of electrocardiography will be explored, with emphasis on interpretation of resting and stress ECGs. Interpretation of dynamic rhythm strips will prepare students to work in cardiac rehabilitation and other allied health professions.

### **KINE5338 – EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS**

**2** Lecture Hours · **3** Lab Hours

This course will discuss the pathophysiology of cardiovascular, metabolic and pulmonary diseases. Methods of exercise prescription and issues of concern will also be presented for these populations, as well as, low back pain, pregnancy, osteoporosis, cancer, anorexia and bulimia, children, adolescents, teens, older adults, fibromyalgia, multiple sclerosis, and chronic fatigue syndrome. Practical application of leadership skills and hands-on instruction will be addressed in the laboratory portion of this course.

### **KINE5345 – SPORT NUTRITION**

**3** Lecture Hours · **0** Lab Hours

Overview of nutrients necessary for healthful living and nutritional impact on reducing risk factors of lifestyle diseases. Application of nutrient recommendations for sports and exercise activities, including fluid replacement, sports supplements, and ergogenic aids. In addition, students will construct plans for dietary intake of athletes during training and competition for both endurance and resistance training. Offered as KINE 5345 and KINE 3301. Credit will be granted only once.

### **KINE5350 – APPLIED BIOMECHANICS**

**3** Lecture Hours · **0** Lab Hours

Application of Newtonian mechanics to human movement analysis. Biomechanical models using three-dimensional video and force plate data will be used to analyze human movement.

### **KINE5389 – RESEARCH MANUSCRIPT SUBMISSION**

**3** Lecture Hours · **0** Lab Hours

The student will collect scientific data in the Physiology of Exercise laboratories or in a work-related environment under the supervision of a faculty member. The student will analyze the data, write a manuscript, and submit a manuscript for publication in a peer-reviewed journal. This course must be taken in the final semester of graduate work and requires approval of the Graduate Advisor.

### **KINE5390 – SPECIAL TOPICS IN KINESIOLOGY**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in physical education and exercise science. May be repeated when topics vary. Prerequisite: consent of instructor.

### **KINE5392 – SPECIAL TOPICS IN KINESIOLOGY**

**3** Lecture Hours · **0** Lab Hours

### **KINE5393 – PHYSIOLOGY OF EXERCISE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Individualized academic training in an external professional exercise physiology setting(e.g., physical medicine, athletic training, external laboratory, health/fitness facility, professional teams or sports management) under the direct supervision of an exercise science professional.

### **KINE5394 – RESEARCH IN KINESIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5396 – RESEARCH IN ATHLETIC TRAINING**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Prerequisite: consent of the instructor.

### **KINE5397 – INTERNSHIP IN ATHLETIC TRAINING**

**3** Lecture Hours · **0** Lab Hours

Individualized clinical experience in an external athletic training or other medical setting (e.g., physicianAs office, rehabilitation clinic, professional sports teams) under the direct supervision of a health care professional.

### **KINE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **KINE5420 – CONCEPTS IN ATHLETIC TRAINING**

**3** Lecture Hours · **2** Lab Hours

Classroom and laboratory experiences that provide an introduction to the profession of Athletic Training with an emphasis on prevention and acute care of activity related injuries and illnesses. Specific topics will include injury prevention strategies; emergency first aid and acute care; superficial application of therapeutic modalities; nutritional considerations; and environmental considerations.

### **KINE5430 – ORTHOPEDIC ASSESSMENT I**

**3** Lecture Hours · **2** Lab Hours

A study of the common orthopedic injuries involving the lower extremities, with a special emphasis on recognition, evaluation, diagnosis, and initial management. Prerequisites: KINE 5120, 5220, and 5420.

### **KINE5431 – ORTHOPEDIC ASSESSMENT II**

**3** Lecture Hours · **2** Lab Hours

A study of the common orthopedic injuries involving the upper extremities, spine, head, and face with a special emphasis on recognition, evaluation, diagnosis, and initial management. Prerequisite: KINE 5430

### **KINE5432 – PATHOPHYSIOLOGY AND PHARMACOLOGY**

**3** Lecture Hours · **2** Lab Hours

A study of acute and chronic illnesses and their response to, and impact on, physical activity. Discussion of pharmacological agents used in the care of general illnesses and musculoskeletal disorders in the

physically active. Prerequisite: KINE 5430, KINE 5433, KINE 5130

### **KINE5433 – THERAPEUTIC INTERVENTIONS I**

**3** Lecture Hours · **2** Lab Hours

A study of the scientific theory and basic principles of musculoskeletal rehabilitation and therapeutic modalities. Emphasis will be placed on understanding the disablement model and learning how to plan, implement, document, and evaluate programs for the rehabilitation and reconditioning of injuries and illnesses of athletes and others involved with physical activity. Operation of superficial heating and cooling therapeutic modalities and how manual treatments (e.g., traction, muscle energy and massage) can be incorporated into a rehabilitation program will be investigated. The underlying principles and application techniques for each modality, therapeutic exercise progressions, patient clinical goals, legal and safe practice guidelines, and evidence based therapeutic modality science will allow for critical thinking and problem solving in relation to common lower extremity injuries. Both surgical and non-surgical rehabilitation models for the lower extremity will be discussed with a special emphasis on the use of functional progressions. Prerequisites: KINE 5420, KINE 5220, KINE 5120

### **KINE5434 – THERAPEUTIC INTERVENTIONS II**

**3** Lecture Hours · **2** Lab Hours

A study of the upper extremity and low back rehabilitation protocols and the use of electric therapeutic modalities (e.g., ultrasound, diathermy, laser, and electric stimulation). Emphasis will be placed on understanding the disablement model and learning how to plan, implement, document, and evaluate programs for the rehabilitation and reconditioning of injuries and illnesses of athletes and others involved with physical activity. Operation of electrical therapeutic modalities and how they can be incorporated into a rehabilitation program will be investigated. The underlying principles and application techniques for each modality, therapeutic exercise progressions, patient clinical goals, legal and safe practice guidelines, and evidence based therapeutic modality science will allow for critical thinking and problem solving in relation to common upper extremity and low back injuries. Both surgical and non-surgical rehabilitation models for the upper extremity and low back will be discussed with a special emphasis on the use of functional progressions. Prerequisite: KINE 5433

### **KINE5498 – THESIS**

**4** Lecture Hours · **0** Lab Hours

### **KINE5598 – THESIS**

**5** Lecture Hours · **0** Lab Hours

### **KINE5694 – RESEARCH IN KINESIOLOGY**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **KINE5994 – RESEARCH IN KINESIOLOGY**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and Engineering](#)

[Electrical Engineering](#)

[Industrial and Manufacturing Systems Engineering](#)

[Materials Science and Engineering](#)

[Mechanical & Aerospace Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public Affairs](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Bioengineering

College of Engineering

**Chair Michael Cho**

**Chair Liping Tang**

Web [www.uta.edu/biomed\\_eng/](http://www.uta.edu/biomed_eng/)

Email [bme@uta.edu](mailto:bme@uta.edu)

Phone 817.272.2249

Fax 817.272.2251

**226 Engineering Research Building**

---

### Degrees / Certificates

#### Master's Degrees

Biomedical Engineering, M.S.

#### Doctoral Degrees

Biomedical Engineering, B.S. to Ph.D.

Biomedical Engineering, Ph.D.

---

### Graduate Faculty

[Christopher Chen](#)

[Michael Cho](#)

[Yi Hong](#)

[Justyn Jaworski](#)

[Juhyun Lee](#)

[Jun Liao](#)

#### Professor

[Khosrow Behbehani](#)

[Cheng-Jen Chuong](#)

[Hanli Liu](#)

[Liping Tang](#)

#### Associate Professor

[Digant Dave](#)

[Kytai Nguyen](#)

[Mario Romero-Ortega](#)

#### Assistant Professor

[Georgios Alexandrakis](#)

[Young-Tae Kim](#)

[Baohong Yuan](#)

#### Adjunct Professor

[Robert Eberhart](#)

---

## Graduate Advisors

### Kytai Nguyen

*Biomedical Engineering, M.S.*  
*Biomedical Engineering, Ph.D.*

### Liping Tang

*Biomedical Engineering, B.S. to Ph.D.*  
*Biomedical Engineering, Ph.D.*

---

## Department Information

### Courses

# Department Information

### Objectives

- **Master's Program**
- **Doctoral Program**
- **Combined Degree Plan: Bachelor of Science in Biology and Master of Science in Bioengineering**
- **Fast Track Programs for a Master's Degree in Biomedical Engineering**
  - **Description**
  - **Career Opportunities**

### Admission

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferral**
- **Denial**
- **Fellowship**

### Continuation

### Degree Requirements

- **Master of Science Degree Plans**
- **Doctor of Philosophy Degree Plan**
- **Courses offered at The University of Texas Southwestern Medical Center at Dallas**

## Objectives

The Biomedical Engineering Program is jointly offered by The University of Texas at Arlington and The University of Texas Southwestern Medical Center at Dallas (UT Southwestern). Research and teaching efforts of various departments in the biological, engineering, mathematical, physical, and medical sciences of both institutions are coordinated through the Committee on Graduate Studies in Bioengineering. The goal of the program is to prepare students for bioengineering careers requiring skills in research, development, and teaching in a variety of settings in industry, in hospitals, in research facilities of educational and medical institutions and in government regulatory agencies. Internships are aimed to further prepare students for careers in the bioengineering industry.

The program includes coursework and research in medical imaging, biosensors, physiological control systems, biomedical signal processing, biomedical instrumentation, rehabilitation, orthopedics, biomechanics, biomaterials and tissue engineering, cell and molecular engineering and neurosciences. Specifically, during the first year of their studies, students in the master's and doctoral programs must select one of the concentration tracks in Bioengineering:

1. Bioinstrumentation,
2. Biomaterials/Tissue Engineering,
3. Biomechanics,
4. Medical Imaging, and
5. Protein Engineering.

An advisor is available to advise students on the relevant courses and the research opportunities in each track.

### Master's Program

The master's program is based upon graduate level work in Bioengineering, life sciences and related physical sciences.

### Doctoral Program

The doctoral program is based upon graduate level work in Bioengineering, and extensive graduate training in the life sciences and related physical sciences. The program is aimed at the development of professional biomedical engineers capable of independent research.

### Combined Degree Plan: Bachelor of Science in Biology and Master of Science in Bioengineering

This five-year curriculum prepares students for careers in the fast growing biotechnology and Bioengineering industries. The curriculum also prepares students for medical school and advanced study. Students are required to take courses from engineering, life sciences and liberal arts, culminating in a five-year Master of Science Degree in Biomedical Engineering, including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Engineering and the College of Science.

### Fast Track Programs for a Master's Degree in Biomedical Engineering

The Fast Track program enables outstanding undergraduate Physics or Biochemistry students to receive dual undergraduate and graduate course credit leading to receiving both a Bachelor of Science Degree in either Physics or Biochemistry and a Master's Degree in Biomedical Engineering. See the departmental advisors for additional information on these programs.

### Description

Bioengineers use quantitative methods and innovation to analyze and to solve problems in biology and medicine. Students choose the Bioengineering field to serve people, to partake in the challenge and excitement of working with living systems, and to apply advanced technology to complex problems of medical care. Through this program, students learn the essentials of life science, engineering theory, and the analytical and practical tools that enable them to be successful in the biotechnology and Bioengineering industries. The program includes coursework in the basic sciences, core engineering, Bioengineering, and advanced biotechnology disciplines. Both didactic classroom lectures and hands-on laboratory experience are emphasized. Additionally, students are required to take general educational courses in literature, fine arts, history, political science, and social science.

### Career Opportunities



The program prepares students as biomedical engineers for careers in industry, in hospitals, in research facilities of educational and medical institutions, and in government regulatory agencies. It also provides a solid foundation for those wishing to continue for advanced degrees. For those planning to pursue a medical degree, this cross-disciplinary curriculum offers a solid foundation in engineering, which is an advantage in preparing for a medical career.

See the UT Arlington [Undergraduate Catalog](#) for a more detailed description of this program.

## Admission

Application for admission should be made at either UT Arlington or U.T. Southwestern. Normally, the institution through which the student applies and is admitted is the student's home institution.

In addition to admission requirements of the Graduate School, the bachelor's degree held by applicants to the program may be in engineering, biological, physical, or mathematical sciences. Depending on the applicant's background, some preparatory coursework may be required, prior to admission into the program. The UT Arlington Biomedical Engineering Program uses the following guidelines in the admission review process:

### Unconditional Admission

#### Master's Program

1. Minimum undergraduate GPA of 3.0 in the last 60 hours of undergraduate work in an engineering discipline as calculated by the Graduate School.
2. GRE Total (quantitative plus verbal) must be greater than 1100 with a verbal score of 400 or better.
3. Three favorable letters of recommendation.
4. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.

#### Doctoral Program

1. Minimum GPA of 3.4 in the last 60 hours taken in the major field of study of engineering or physical sciences as calculated by the Graduate School.
2. GRE Total (quantitative plus verbal) must be greater than 1175 with a verbal score of 400 or better.
3. Three favorable letters of recommendation.
4. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.

### Probationary Admission

#### Master's Program

1. If the applicant meets any two of the above items 1, 2, and 3.
2. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.

#### Doctoral Program

1. If an applicant meets any two of the above items 1, 2, and 3.
2. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.



## Provisional Admission

An applicant who is unable to supply all required documents prior to the admission deadline, but who otherwise appears to meet admission requirements may be granted provisional admission.

## Deferral

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

## Denial

A candidate may be denied admission if he/she has less than satisfactory performance in two out of the three admission criteria, excluding TOEFL.

## Fellowship

No additional requirements besides the information published by the Graduate School.

## Continuation

The Biomedical Engineering Graduate Program has established certain policies to fulfill its responsibility to graduate highly qualified professional engineers. In addition to the requirements of the Graduate School listed in this catalog under Advanced Degrees and Requirements, each bioengineering graduate student who wants to continue in the program must:

1. Maintain at least a B (3.0) overall GPA in all coursework, and
2. Demonstrate suitability for professional engineering practice.

At such time as questions are raised by bioengineering graduate faculty regarding either of the above, the student will be notified and will be provided the opportunity to respond to the Committee on Graduate Studies in Bioengineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "[Grievances Other than Grades.](#)"

## Degree Requirements

### Master of Science Degree Plans

Students in the Thesis Degree plan must take a minimum of 31 credit hours, and students in the Thesis-Substitute Degree plan must take a minimum of 33 credit hours as specified below.

**Required Bioengineering:** One laboratory course in Bioengineering approved by the graduate advisor such as Laboratory Principles (BE 5382) or Tissue Engineering Lab (BE 5365); BE Seminar (BE 5101).

**Bioengineering:** Four courses from the following list consistent with the student's track of study and approval of the Graduate Advisor: Biological Materials, Mechanics, and Processes (BE 5335); Finite Element Applications in Bioengineering (BE 5340); Biosensors and Applications (BE 5345); Modeling and Control of Biological Systems (BE 5350); Digital Control of Biomedical Systems (BE 5351); Digital Processing of Biological Signals (BE 5352); Design and Application of Artificial Organs (BE 5360); Thermoregulation and Bioheat Transfer (BE 5362); Biomaterials and Blood Compatibility (BE 5361); Introduction to Orthopedic Mechanics (BE 5331D); Orthopedic Biomaterials (BE 5332D); Tissue Engineering (BE 5364); Tissue Engineering Laboratory (BE 5365); Process Control in Biotechnology (BE 5366); Biomaterial-Living System Interactions (BE 5370).

**Engineering:** One course from Bioengineering or other engineering departments, with the approval of the Graduate Advisor.

**Required Life Sciences:** Human Physiology (BE 5309D) and one other life science course with the approval of the Graduate Advisor.

**Thesis Plan:** Directed Research in Bioengineering (BE 5391), re-enroll as needed; Thesis (BE 5698) at the semester in which the student expects to submit and defend the thesis.

**Thesis-Substitute Plan:** Master's Comprehensive Examination (BE 5293); Research Project (BE 5390), re-enroll as needed or a minimum of three hours of Biomedical Internship (6395, 6695 or 6995); and one 3-hour graduate level course from Bioengineering, life science or engineering with the approval of the Graduate Advisor.

## Doctor of Philosophy Degree Plan

The Ph.D. degree program consists of a minimum of 47 credit hours beyond the bachelor's degree level and includes the courses as specified below. Course requirements differ for the Protein Engineering and Molecular and Computational Bioengineering track. See track advisor for details.

**Required Bioengineering:** One laboratory course in bioengineering approved by the Graduate Advisor, such as Laboratory Principles (BE 5382) or Tissue Engineering Lab (BE 5365); BE Seminar (BE 5101); Ph.D. Seminar in BE (BE 6103) for at least two semesters.

**Elective Bioengineering:** Five courses from: Biological Materials, Mechanics, and Processes (BE 5335); Finite Element Applications in Bioengineering (BE 5340); Biosensors and Applications (BE 5345); Modeling and Control of Biological Systems (BE 5350); Digital Control of Biomedical Systems (BE 5351); Digital Processing of Biological Signals (BE 5352); Design and Application of Artificial Organs (BE 5360); Thermoregulation and Bioheat Transfer (BE 5362); Biomaterials and Blood Compatibility (BE 5361); Introduction to Orthopedic Mechanics (BE 5331D); Orthopedic Biomaterials (BE 5332D); Tissue Engineering (BE 5364); Tissue Engineering Laboratory (BE 5365); Process Control in Biotechnology (BE 5366); Biomaterial-Living System Interactions (BE 5370) or other courses with the approval of the Graduate Advisor.

**Engineering:** One course from other engineering departments or a life science course with the approval of the Graduate Advisor.

**Life Sciences:** Human Physiology (BE 5309); Cell Physiology, Neuroscience, or Tumor Physiology; and Biochemistry, Molecular Biology, or Immunology are required. Other life science courses may also be taken with the approval of the Graduate Advisor.

**Mathematics, Statistics, Computer and Physical Sciences:** A course in biostatistics is required.

**Ph.D. Examinations and Dissertation:** All doctoral students must satisfactorily complete the following exams: Doctoral Diagnostic Examination (BE 6194), Doctoral Comprehensive Examination (BE 6195), and Dissertation (BE 6999) at the semester in which the student expects to submit and defend the dissertation.

Although qualified applicants may be accepted into the Ph.D. program without earning the Master of Science in Biomedical Engineering, all students must satisfactorily pass the Doctoral Diagnostic Examination (BE 6194). This examination will cover all relevant coursework taken by the student. The examination may be written, oral, or both and consists of a timed, written analysis of a major problem in the student's general area of research interest, followed by an oral examination covering the same material. Elements of engineering, physical and biological science, mathematics, computer science and statistics may be included in this examination.

For additional information, applicants and students should contact the BE Graduate Advisor for a copy of the "Information Brochure" for related and amplified information about the graduate program. The information can also be found at [http://www.uta.edu/biomed\\_eng/](http://www.uta.edu/biomed_eng/).

Note: In degree plan descriptions, course numbers followed by a D are offered at U.T. Southwestern.

## Bioengineering courses offered at The University of Texas Southwestern Medical Center at Dallas (U.T. Southwestern):

BME 5300D. Special Topics in Bioengineering  
BME 5396D. Individual Laboratory Projects  
BME 5363D. Digital Processing of Medical Images  
BME 5306D. Biochemistry  
BME 5307D. Human Anatomy Lectures  
BME 5308D. Human Anatomy Laboratory  
BME 5309D. Human Physiology  
BME 5331D. Introduction to Orthopedic Mechanics  
BME 5332D. Orthopedic Biomaterials  
BME 5680D. Mammalian Physiology

See the U.T. Southwestern Graduate Catalog for course descriptions and additional courses.

## BE Courses

### BE5101 – SEMINAR IN BIOENGINEERING

1 Lecture Hour · 0 Lab Hours

University and guest lecturers speak on topics of current interest in the field of bioengineering.

### BE5191 – DIRECTED RESEARCH IN BIOENGINEERING

1 Lecture Hour · 0 Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### BE5193 – MS COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Individual instruction, directed study, consultation, and comprehensive examination over coursework leading to the Thesis-Substitute Master of Science degree in bioengineering. Graded P/F/R. Required of all Thesis-Substitute MS students.

### BE5281 – BEST PRACTICES IN TEACHING AND LEARNING

2 Lecture Hours · 0 Lab Hours

Introduction to approaches and activities that can facilitate learning. Students gain insight into specific challenges of teaching, basics of designing a course, role of assessments and evaluations, good presentation skills and comparisons of various engagement levels. Students teach mock lessons and are given feedback.

### BE5291 – DIRECTED RESEARCH IN BIOENGINEERING

2 Lecture Hours · 0 Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### BE5293 – MASTERS COMPREHENSIVE EXAMINATION

2 Lecture Hours · 0 Lab Hours

Individual instruction, directed study, consultation, and comprehensive examination over coursework leading to the Master of Science degree in bioengineering. Required of all MS students.

### **BE5300 – SELECTED TOPICS IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Material may vary from semester to semester. May be repeated for credit if different topics are covered for each registration. Prerequisite: permission of the instructor.

### **BE5309 – HUMAN PHYSIOLOGY IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

An introduction to human physiology emphasizing biomedical engineering related topics. The course focuses on understanding basic function with the relationships on the cellular as well as organ level both in healthy and diseased states.

### **BE5316 – FUNDAMENTAL MATH AND PHYSICS FOR BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course introduces the basic physics concepts such as introduction to electromagnetism, Maxwell's equations, computation of Fresnel coefficients, interference and diffraction of light, waveguides and optical fibers, photon counting statistics, and Beer-Lambert law. It also covers basic mathematical concepts such as curvilinear coordinates, vector calculus, Stokes theorem and solving differential equations with initial conditions and the diffusion equation.

### **BE5323 – INTRODUCTION TO BIOPHOTONICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to properties of light, light-cell/tissue interactions, optical techniques, and optical instrumentation, in the context of biophotonic medical applications. Topics that will be covered include fundamental properties of optical wave fields, basic properties and characterization of laser sources and detectors used in modern biomedicine, interferometry, linear and nonlinear light-tissue interactions exploited for biomedical imaging and sensing applications, and spectroscopy.

### **BE5324 – BIOMEDICAL OPTICS LABORATORY**

**0** Lecture Hours · **3** Lab Hours

The primary objective of the Biomedical Optics Laboratory course is to provide students hands-on experience with fundamental optical techniques and instrumentation used in modern biomedical research and applications. The skills learned will be valuable to anyone who intends to work in an experimental setting that requires working knowledge of optical instrumentation and techniques. The course is divided into ten core lab modules that cover topics ranging from basic optical techniques to advanced imaging and spectroscopy techniques.

### **BE5325 – FLUORESCENCE MICROSCOPY**

**3** Lecture Hours · **0** Lab Hours

Introduction to the anatomy of a fluorescence microscope and the physical principles of its operation. Confocal and multi-photon microscopy. Molecular imaging applications based on Forster Resonance Energy Transfer (FRET), Fluorescence Lifetime Imaging (FLIM), Fluorescence Correlation Spectroscopy (FCS), Fluorescence Recovery After Photobleaching (FRAP) and Total Internal Reflection Fluorescence (TIRF) Microscopy

### **BE5327 – TISSUE OPTICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the science and technology behind tissue optical imaging systems and their design requirements for different clinical applications. Diffuse optical tomography, fluorescence tomography, bioluminescence tomography, multi-modality imaging.

### **BE5329 – NEURAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course consists of both lecture/discussion and laboratory. Lecture topics include central and peripheral nervous system injury and regeneration, brain/machine interfacing, primary culture of neural cells, neuroinflammatory and neurodegenerative disease. Laboratories include embryonic and neonatal rat

derived neuronal culturing, immunostaining and quantitative analysis.

### **BE5331 – POLYMERS IN BIOMEDICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This is a foundation course in polymeric biomaterial design, synthesis, characterization, and processing. The topics include design, surface-engineering, functionalization, characterization, as well as micro- and nano-fabrication of polymeric biomaterials. The biomedical applications of the polymeric biomaterials and their interaction with cell/tissue is discussed.

### **BE5333 – NANOBIMATERIALS**

**3** Lecture Hours · **0** Lab Hours

Synthesis, fabrication, characterization, and biomedical applications of nanobiomaterials. Topics include synthetic nanobiomaterials, biological nanobiomaterials (DNA nanomaterials, protein and peptide nanomaterials, etc.), biofunctionalization of nanobiomaterials, use of nanobiomaterials in tissue engineering, drug delivery, gene delivery.

### **BE5335 – BIOLOGICAL MATERIALS, MECHANICS, & PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Typical functional behavior of various biological materials, flow properties of blood, bioviscoelastic fluids and solids, mass transfer in cardiovascular and pulmonary systems.

### **BE5337 – TRANSPORT PHENOMENA IN BIOMEDICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Principles of momentum, mass and heat transfer; description of blood flow, trans-capillary, interstitial, lymphatic fluid transport and pulmonary gas exchange. Applications in the design of blood oxygenator, dialysis devices, and strategies in drug delivery, hyperthermia treatment. Prerequisite: undergraduate courses in CE 2312 Statics/Dynamics, MAE 2314 Fluid Mechanics I or CE 3305 and MAE 3310 Thermodynamics I or CHEM 3321.

### **BE5340 – FINITE ELEMENT APPLICATIONS IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The course describes the fundamental principles of the finite element method and various numerical modeling techniques. Topics include variational and Galerkin formulations, linear and Hermitian elements, accuracy and convergence. Applications in biological systems and to the design of prosthetic devices are emphasized. Topic areas include linear elasticity, fluid dynamics, heat transfer, and mass transport processes.

### **BE5344 – BIOINSTRUMENTATION I**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of bioinstrumentation, including operational amplifiers and instrumentation amplifiers; measurements of biopotentials; signals and noise in biological systems; mechanical transducers; resistive, inductive, capacitive transducers; measurement of temperature, blood pressure and flow; electrical safety.

### **BE5346 – MEDICAL IMAGING**

**3** Lecture Hours · **0** Lab Hours

This course introduces basic medical imaging modalities, including X-ray Computed Tomography (CT), Nuclear Medicine Imaging (PET and SPECT), Magnetic Resonance Imaging (MRI), and image-guided interventions. Through this course, the students will learn fundamental knowledge on how medical images are obtained and how they can be used for diagnosis, therapy, and surgery.

### **BE5347 – PRINCIPLES OF FUNCTIONAL MAGNETIC RESONANCE IMAGING**

**3** Lecture Hours · **0** Lab Hours

This course introduces basic principles of Magnetic Resonance Imaging (MRI) and functional MRI (fMRI) for brain functional imaging. After taking this course, the students will gain basic knowledge on how functional brain images are obtained from MRI and fMRI as well as how they can be used for diagnosis, therapy, and surgery. The emphasis in this course is on fMRI. This course will include lecture and some laboratory exercises involving actual fMRI measurement data.

### **BE5350 – MODELING AND CONTROL OF BIOLOGICAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Introduction to fundamental methods of modeling, analysis and control of biological systems. Linear system modeling, state space modeling, stability analysis, basic identification techniques. Examples from cardiopulmonary, visual, and motor control systems. Prerequisite: an undergraduate course in linear systems, control theory, or consent of the instructor.

### **BE5352 – DIGITAL PROCESSING OF BIOLOGICAL SIGNALS**

**3** Lecture Hours · **0** Lab Hours

Fundamental techniques for extraction of useful information from signals acquired from biological systems. Topics include time and frequency domain analysis, cross correlation, spectrum analysis, and convolution. Design of FIR and IIR filters for processing biological signals are described. Examples include cardiac, respiratory, and biomechanical movements. Prerequisite: an undergraduate engineering course in signals and systems analysis or consent of the instructor.

### **BE5360 – DESIGN AND APPLICATION OF ARTIFICIAL ORGANS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of fluid mechanics, mass transfer and chemical reaction in engineered biological systems. Simple solutions are developed for the design of artificial ventricular assist devices, total artificial hearts, lungs and kidneys.

### **BE5361 – BIOMATERIALS AND BLOOD COMPATIBILITY**

**3** Lecture Hours · **0** Lab Hours

This course is an introduction to polymer structure and fabrication methods. Blood and tissue interactions with materials, and methods to improve the biocompatibility of materials are discussed.

### **BE5364 – TISSUE ENGINEERING LECTURE**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of cell/extracellular matrix interactions in terms of cell spreading, migration, proliferation and function. Soft and hard tissue wound healing and nerve regeneration. Polymer scaffolding materials and fabrication methods. Cell-polymer interactions. In vitro and in vivo tissue culture and organ replacement.

### **BE5365 – TISSUE ENGINEERING LAB**

**0** Lecture Hours · **3** Lab Hours

Each student will be given the opportunity to perform the techniques commonly used in tissue engineering and biomaterial research. These techniques are culture media preparation, cell culture/subculture, degradable scaffold preparation, scaffold modification, histological sections and staining, and cell imaging analyses.

### **BE5366 – PROCESS CONTROL IN BIOTECHNOLOGY**

**2** Lecture Hours · **3** Lab Hours

Principles and methods of measurement, data acquisition and analysis. Application of control theory in biological systems and in biotechnology processes; control of pressure, flow, temperature, and pH. Prerequisite: an undergraduate course in control theory or consent of the instructor.

### **BE5370 – BIOMATERIAL - LIVING SYSTEMS INTERACTION**

**3** Lecture Hours · **0** Lab Hours

This course describes current developments in molecular structure and organization at synthetic material interfaces with tissues and the subsequent influences on cells and cell membranes. It is designed to lay the groundwork for an improved understanding of events at the biomaterial-living system interface.

### **BE5372 – DRUG DELIVERY**

**3** Lecture Hours · **0** Lab Hours

This class focuses on the development, design and application of controlled and targeted drug delivery systems including transdermal, inhalation, drug eluting stents, stimulated-drug as well as microparticles and nanoparticles for controlled drug delivery. Principles of drug delivery, targeting, modification, distribution and diffusion will be discussed.

### **BE5373 – DRUG DELIVERY LAB**

**3** Lecture Hours · **0** Lab Hours

This class will provide the students with hands-on experience for developing drug delivery systems such as microparticles and nanoparticles that deliver pharmaceutical agents to treat various diseases. The emphasis is on understanding the principles of pharmacokinetics and drug delivery systems to improve the clinical efficacy and reduce side effects.

### **BE5382 – LABORATORY PRINCIPLES**

**0** Lecture Hours · **9** Lab Hours

Introduction to fundamental biomedical engineering laboratory procedures including human studies and animal surgery; includes clinical laboratory projects; data collection, analysis, and interpretation. Prerequisite: permission of the instructor.

### **BE5390 – RESEARCH PROJECT**

**3** Lecture Hours · **0** Lab Hours

Taken by students enrolled in the non-thesis option for the MS degree. Individual instruction in research and/or instrumentation development and evaluation conducted under supervision of the instructor. A final report required. Graded P/F/R. Prerequisite: permission of the instructor.

### **BE5391 – DIRECTED RESEARCH IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### **BE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: graduate standing in biomedical engineering.

### **BE5691 – DIRECTED RESEARCH IN BIOENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### **BE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: graduate standing in biomedical engineering.

### **BE6103 – PHD SEMINAR IN BIOENGINEERING**

**1** Lecture Hour · **0** Lab Hours

Students will be assigned to participate in the journal clubs and medical grand rounds relevant to their areas of research in Bioengineering. Graded P/F only. Prerequisite: Ph.D. student status.



### **BE6194 – DOCTORAL DIAGNOSTIC EXAMINATION**

1 Lecture Hour · 0 Lab Hours

Individual instruction, directed study, consultation, and diagnostic examination. Required of all doctoral students in the semester when they take any portion of the diagnostic examination.

### **BE6195 – DOCTORAL COMPREHENSIVE EXAMINATION**

1 Lecture Hour · 0 Lab Hours

Individual instruction, directed study, consultation, and comprehensive examination on a detailed prospectus of proposed dissertation research as well as an oral examination. Required of all doctoral students in the semester when they take the comprehensive examination. Prerequisite: BE 6194.

### **BE6197 – RESEARCH IN BIOENGINEERING**

1 Lecture Hour · 0 Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of biomedical engineering.

### **BE6297 – RESEARCH IN BIOENGINEERING**

2 Lecture Hours · 0 Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of biomedical engineering.

### **BE6395 – INTERNSHIP IN BIOENGINEERING**

3 Lecture Hours · 0 Lab Hours

Students are placed with a bioengineering company or a hospital to gain firsthand industrial or clinical engineering experience. The company or hospital assigns projects, and a faculty member monitors the student's progress. Students register for 3 (BE 6395), 6 (BE 6695), or 9 (BE 6995) credit hours during each semester. Prerequisite: completion of at least 9 graduate credit hours in BE and good standing in the graduate program.

### **BE6397 – RESEARCH IN BIOENGINEERING**

3 Lecture Hours · 0 Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of bioengineering.

### **BE6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. Graded R/F only. Prerequisite: admission to candidacy for the Ph.D. in Biomedical Engineering.

### **BE6499 – DISSERTATION**

4 Lecture Hours · 0 Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. This course is only to be taken by students preparing a dissertation for submission that is supervised primarily by a University of Texas Southwestern Medical School faculty member and must be taken concurrently with a 5-hour dissertation course at that institution. To satisfy requirement that a P be awarded in a 9-hour dissertation course in their final semester of enrollment, a student must be concurrently enrolled in this course and the 5-hour dissertation course at the University of Texas Southwestern Medical School and receive a P in both courses at the end of that semester. If a P is not awarded in both classes, the two classes must be repeated until P grades are concurrently awarded.

### **BE6695 – INTERNSHIP IN BIOENGINEERING**

6 Lecture Hours · 0 Lab Hours

Students are placed with a bioengineering company or a hospital to gain firsthand industrial or clinical



engineering experience. The company or hospital assigns projects, and a faculty member monitors the student's progress. Students register for 3 (BE 6395), 6 (BE 6695), or 9 (BE 6995) credit hours during each semester. Prerequisite: completion of at least 9 graduate credit hours in BE and good standing in the graduate program.

### **BE6697 – RESEARCH IN BIOENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of bioengineering.

### **BE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. Graded R/F only. Prerequisite: admission to candidacy for the Ph.D. in Biomedical Engineering.

### **BE6995 – INTERNSHIP IN BIOENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Students are placed with a bioengineering company or a hospital to gain firsthand industrial or clinical engineering experience. The company or hospital assigns projects, and a faculty member monitors the student's progress. Students register for 3 (BME 6395), 6 (BME 6695), or 9 (BME 6995) credit hours during each semester. Prerequisite: completion of at least 9 graduate credit hours in BE and good standing in the graduate program.

### **BE6997 – RESEARCH IN BIOENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of bioengineering.

### **BE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. Graded P/R/F. Prerequisite: admission to candidacy for the Ph.D. in Biomedical Engineering.

### **BE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **HSC Courses**

### **HSC5094 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

### **HSC5096 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5098 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5101 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5102 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5106 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5123 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5152 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5154 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5162 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5172 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5173 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5184 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5191 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5193 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5194 – CONCURRENT COURSE**

1 Lecture Hour · 0 Lab Hours

**HSC5195 – CONCURRENT COURSE**

1 Lecture Hour · 0 Lab Hours

**HSC5196 – CONCURRENT COURSE**

1 Lecture Hour · 0 Lab Hours

**HSC5291 – CONCURRENT COURSE**

0 Lecture Hours · 2 Lab Hours

**HSC5294 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5296 – CONCURRENT COURSE**

2 Lecture Hours · 0 Lab Hours

**HSC5300 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5302 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5304 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5306 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5307 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5308 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5309 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5323 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5331 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5360 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5361 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5362 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5363 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5370 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5372 – CONCURRENT COURSE**

0 Lecture Hours · 0 Lab Hours

**HSC5374 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5381 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5382 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5383 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5385 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5387 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5388 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5389 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5390 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5391 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5392 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5394 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5395 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5396 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5398 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5399 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5491 – CONCURRENT COURSE**

4 Lecture Hours · 0 Lab Hours

**HSC5494 – CONCURRENT COURSE**

4 Lecture Hours · 0 Lab Hours

**HSC5499 – THESIS RESEARCH**

4 Lecture Hours · 0 Lab Hours

**HSC5505 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5580 – CONCURRENT COURSE**

5 Lecture Hours · 0 Lab Hours

**HSC5582 – CONCURRENT COURSE**

5 Lecture Hours · 0 Lab Hours

**HSC5594 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5598 – CONCURRENT COURSE**

5 Lecture Hours · 0 Lab Hours

**HSC5607 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5683 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5694 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5698 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5699 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5794 – CONCURRENT COURSE**

7 Lecture Hours · 0 Lab Hours

**HSC5796 – CONCURRENT COURSE**

7 Lecture Hours · 0 Lab Hours

**HSC5798 – CONCURRENT COURSE**

7 Lecture Hours · 0 Lab Hours

**HSC5894 – CONCURRENT COURSE**

8 Lecture Hours · 0 Lab Hours

**HSC5983 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5994 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6103 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6195 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC6395 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6397 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6399 – DISSERTATION PREPARATION & DEFENSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6599 – DISSERTATION PREPARATION AND DEFENSE**

**5** Lecture Hours · **0** Lab Hours

**HSC6695 – CONCURRENT COURSE**

**6** Lecture Hours · **0** Lab Hours

**HSC6995 – CONCURRENT COURSE**

**9** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
    - Bioengineering
    - Civil Engineering
    - Computer Science and Engineering
    - Electrical Engineering
    - Industrial and Manufacturing Systems Engineering
    - Materials Science and Engineering
    - Mechanical & Aerospace Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Civil Engineering

College of Engineering

### Chair Nur Yazdani

Web [www.uta.edu/ce/](http://www.uta.edu/ce/)  
Phone 817.272.5055  
Fax 817.272.2630

417 Nedderman Hall

---

### Degrees / Certificates

#### Master's Degrees

- Civil Engineering, M.Engr.
- Civil Engineering, M.Engr. Fast Track
- Civil Engineering, M.S.
- Master of Construction Management

#### Doctoral Degrees

- Civil Engineering BS to PhD-DB
- Civil Engineering, Ph.D.

---

### Graduate Faculty

Zheng Fang  
S Ham  
Seyed Mohsen Shahandashti  
Yvette Weatherton

#### Professor and Chair

Seyedali Abolmaali

#### Professor of Practice

Mohammad Najafi

#### Professor

Siamak Ardekani  
Md Hossain  
Laureano Hoyos  
Anand Puppala  
James Williams  
Nur Yazdani

#### Associate Professor

Shih-Ho Chao  
Andrew Kruzic  
Stephen Mattingly  
Stefan Romanoschi  
Melanie Sattler  
Dong-Jun Seo



#### **Assistant Professor**

**Hyeok Choi**  
**Xinbao Yu**

#### **Senior Lecturer**

**Mostafa Ghandehari**  
**Srinivas Prabakar**  
**Seyed Mohammad Razavi**

---

### **Graduate Advisors**

#### **Kristiana Hamedi**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*

#### **Sara Ridenour**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*  
*Master of Construction Management*

#### **Melanie Sattler**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.S.*  
*Civil Engineering, Ph.D.*

---

### **Department Information**

#### **Courses**

## **Department Information**

#### **Objective**

- **Masters (M.S. and M.Engr.) Student Learning Outcomes**
- **Ph.D. Student Learning Outcomes**

#### **Admission**

- **CE Master's Program**
- **CE Doctoral Program**
- **CE BS-Ph.D. Program**

#### **Grade Requirements and Continuation**

#### **Degree Requirements**

#### **Dual Program Degree**

#### **Undergraduate Coursework Credit**

#### **Objective**

The objective of the graduate program in civil engineering is to prepare students for continued professional and scholarly development consistent with their technical interests. Students, with the assistance of a faculty advisor in their area of interest, plan their programs of study in one of the technical areas in civil engineering. Typical program and research areas are:

1. Environmental (water and air quality control, and solid and hazardous materials control);
2. Geotechnical (soil mechanics and foundations);
3. Infrastructure Systems Engineering and Management;
4. Structures and Applied Mechanics;
5. Transportation (traffic planning, highways, airports and transit);
6. Water Resources (hydrology and hydraulics);
7. Construction Engineering and Management

The department provides the student an opportunity to study advanced and special topics that are on the forefront of technology. These courses carry CE 5300 or CE 6300 numbers and are identified on a student's academic record by both number and course title. Examples of topics offered in the typical program areas are:

**Construction Engineering and Management**-Engineering, Technical, and Managerial Aspects of Construction Projects; Productivity of Construction Operations; Cost Estimating, Project Scheduling, Job Costing, Contracts, Specifications and Legal Aspects of Construction; Equipment Utilizations and Field Operations; Design of Construction Operations; Environmental and Sustainability Aspects of Construction Projects; Computer Applications.

**Environmental** - Advanced Dispersion Modeling, Analysis of Pollutant Characteristics, Hazardous Waste Remediation;

**Geotechnical**- Expansive Clays, Soil Chemical Stabilization;

**Infrastructure Systems Engineering and Management** - Civil Engineering Infrastructure Systems to Transport People, Goods, Water, Waste Water, Solid Waste, Energy and Information;

**Structures and Applied Mechanics** - Earthquake Engineering, Finite Elements and Mechanics, Bridge Design, Advanced Design with Timber, Masonry, Steel and Concrete;

**Transportation** - Intelligent Transportation Systems, Network Modeling, Urban Operations Research, Vehicular Energy Consumption and Emissions, Transit and Paratransit, Intermodal Systems;

**Water Resources** - Kinematic Wave Theory, Urban Hydrology, Distributed Modeling, Physical Modeling, and Boundary Layer Theory.

### Masters (M.S. and M.Engr.) Student Learning Outcomes

1. *Fundamental Knowledge*: Graduates will have extensive basic and applied knowledge in their selected Civil Engineering Program (CEP) interest area.
2. *Independent Abilities*: Graduates will have the ability to conduct independent and original study ranging from gathering of information to application, analysis, creation, documentation of the study, and its resolution.
3. *Critical Thinking*: Graduates will have extensive breadth and ability to critique and synthesize literature, review results and to apply this knowledge in developing new ideas, in designing and evaluating scientific investigations, and in assessing, interpreting and understanding data relating to their selected CEP interest area.
4. *Advanced Knowledge*: Graduates will demonstrate extensive mastery of the subject matter at a deeper theoretical and applied level beyond the fundamental knowledge gained in his/her undergraduate course sequence.
5. *Effective Communication*: Graduates will have the ability to present scientific results in both written and oral format in various forums including thesis defense, master's defense, project reports, manuscripts, professional society meetings, journals, and performing class

lectures, presentations, and reports.

6. *Professional Development*: A student graduating with a master's degree in civil engineering is expected to demonstrate interest in pursuing life long learning by attaining professional licenses, and obtaining professional development hours by attendance at conferences, higher educational classes, short courses and seminars, conducting classes, and publishing.

### Ph.D. Student Learning Outcomes

1. *Fundamental Knowledge*: Graduates will command profound basic and applied knowledge in their specialty area within their Civil Engineering Program (CEP) interest area.
2. *Independent Abilities*: Graduates will have the ability to conduct a major independent and original research study that includes gathering of information, gaining an understanding of the process of academic or commercial exploitation of research results, demonstrating an understanding of contemporary research issues, effective project management, synthesis and evaluation, and appropriate dissemination of research findings.
3. *Critical Thinking*: Graduates will have a profound ability to critique and synthesize literature, review results and to apply knowledge gained from literature to develop new ideas, to design and evaluate scientific investigations, and to assess, interpret and understand data related to their specialty area within their CEP interest area.
4. *Advanced Knowledge*: Graduates will demonstrate profound mastery of the subject matter at a deeper theoretical and applied level well beyond fundamental knowledge gained in the undergraduate course sequence and the higher-level knowledge gained in the master's level course sequence.
5. *Effective Communication*: Graduates will have the ability to construct coherent arguments and articulate ideas clearly to an audience, through a variety of techniques, constructively defend research outcomes, justify their research to the profession and promote the public understanding of their research fields.
6. *Professional Development*: A student graduating with a doctoral degree in civil engineering is expected to demonstrate interest in pursuing life long learning by attaining professional licenses, and obtaining professional development hours by attendance at conferences, higher educational classes, short courses and seminars, conducting classes, and publishing.

## Admission

Performance on the GRE will not be the sole criterion for admitting applicants or the primary criterion to deny admission to either the master's or Ph.D. program. In cases where GRE performance is relatively poor all other qualifications presented by the applicant will be carefully evaluated for evidence of potential for success.

### CE Master's Program

#### Unconditional Admission

A student must meet the following requirements for unconditional admission:

1. A Bachelor's Degree in Civil Engineering (Applicant with an appropriate Bachelor's Degree in another discipline is considered, subject to satisfactory completion of deficiency courses for area of interest.)
2. An undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful applicant.
3. A Graduate Record Exam (GRE) Quantitative score of 700 (old score system) or 155 (new score system) or higher is typical of a successful applicant.
4. A Graduate Record Exam Verbal score of 390 (old score system) or 146 (new score system) or higher is typical of a successful applicant.

5. For applicants whose native language is not English, a minimum score of 558 on the written Test of English as a Foreign Language (TOEFL), 220 on the computer TOEFL, 83 on TOEFL iBT, 40 on the TSE-A, 50 on the SPEAK, 400 on Verbal GRE, 85 on METLAB (Michigan English Language Assessment Battery), or 7 on the IELTS (International English Language Testing System). (METLAB and IELTS are used only when other tests are not available in the applicant's country.)
6. Favorable letters of recommendation from people familiar with the applicant's academic work.

### **Probationary Admission**

If applicants do not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission may require that the applicant receive a B or better in at least their first 9 hours of graduate coursework applicable to their degree being sought at UT Arlington, take additional English courses, and/or deficiency courses as required.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline, but whom otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferred Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

### **Waiver of GRE Admission**

A waiver of the GRE may be considered for a UT Arlington graduate who has completed an undergraduate degree within the past 3 years from normal undergraduate feeder program for CE degree. Students must complete the last 60 hours of study and in all undergraduate coursework completed at UT Arlington. The student must comply with all other requirements for admission to the Graduate School, i.e., submitting application, paying fees, providing required transcripts, letters of reference, etc. The applicant's record will be assessed for evidence of strengths relevant to success in the Civil Engineering graduate program. Meeting the minimum GPA requirement shall not be the sole determinant or the primary criterion for granting a waiver.

### **Facilitated Admission of Outstanding UT Arlington Undergraduates**

Facilitated Admission may be considered for a student who has graduated from UT Arlington no more than one academic year prior to proposed entrance to the graduate program. Students must complete the last 60 hours of study at UT Arlington. The student's UT Arlington GPA must equal or exceed 3.5 in the last 60 hours of undergraduate study and all undergraduate coursework completed at UT Arlington. The applicant's record will be assessed for evidence of strengths relevant to success in the Civil Engineering graduate program. Meeting the minimum GPA requirement shall not be the sole determinant or the primary criterion for granting facilitated admission.

### **Fast Track Program for Master's Degree in Civil Engineering**

The Fast Track Program enables outstanding senior undergraduate Civil Engineering students to receive undergraduate and graduate credit for up to six hours of coursework. Technical electives which are dual-listed as graduate courses will satisfy both bachelor's and master's degree requirements. Students pursuing an MECE degree may take up to two courses for dual credit.

Interested undergraduate Civil Engineering students should apply to the Graduate School for

admission to the Fast Track Program when they are within 30 hours of completing their bachelor's degree (and before graduation). For admission consideration, they must have completed at least 30 hours at UT Arlington and have an overall and College of Engineering GPA of at least 3.0 (in both). Additionally, they must have completed a set of three basic undergraduate foundation courses with a grade of B or higher in each course and a GPA of at least 3.3 in these three courses. The specific foundation courses vary according to the student's desired specialty area for the master's degree.

In their final semester as an undergraduate, Fast Track students in good standing will be automatically admitted to graduate school with consent of the Graduate Advisor. No fees, transcripts, or test scores will be required. For further information about this program, contact an undergraduate advisor or the Graduate Advisor in Civil Engineering.

### **Departmental Scholarships**

Students that are unconditionally admitted will be eligible for available scholarships. Award of scholarships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must have a GPA of 3.0 in their last 60 undergraduate credit hours (if entering Graduate School within one year of being granted a Bachelor Degree) plus any graduate credit hours as calculated by the Graduate School. Recipients must maintain at least a 3.0 overall GPA, and must be enrolled in a minimum of 9 hours of coursework in both long semesters to retain their scholarship. Additional requirements may be imposed by the department selection committee.

### **CE Doctoral Program**

#### **Unconditional Admission**

A student must meet the following requirements for unconditional admission:

1. A Master's Degree or at least 30 hours of graduate coursework in Civil Engineering. (Applicant with a Master's Degree in another discipline is considered, subject to satisfactory completion of deficiency courses for the CE area of interest.)
2. No specific GPA requirement (application considered as a whole). However, a graduate coursework GPA of 3.5 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful applicant.
3. A Graduate Record Exam (GRE) Quantitative score of 740 (old score system) or 158 (new score system) or higher is typical of a successful applicant.
4. A competitive Graduate Record Examination Verbal score. A successful applicant typically has a Verbal score of 420 (old score system) or 148 (new score system).
5. For applicants whose native language is not English, a minimum score of 563 on the written Test of English as a Foreign Language (TOEFL), 222 on the computer TOEFL, 84 on TOEFL iBT, 40 on the TSE-A, 50 on the SPEAK, 425 on Verbal GRE, 86 on METLAB (Michigan English Language Assessment Battery), or 7 on the IELTS (International English Language Testing System). (METLAB and IELTS are used only when other tests are not available in the applicant's country.)
6. Favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

#### **Probationary Admission**

If applicants do not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission may require that the applicant receive a B or better in at least their first 9 hours of graduate coursework applicable to their degree being sought at UT Arlington, take additional English courses, and/or deficiency courses as required.

#### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline, but whom otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferred Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

### **Departmental Scholarships and Fellowships**

Students that are unconditionally admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible for a departmental scholarship, candidates must have a GPA of 3.5 in their graduate credit hours. Recipients must maintain at least a 3.5 overall graduate GPA in courses taken as a doctoral student and enroll in a minimum of 9 hours of coursework in both long semesters to retain their scholarship. To be eligible for fellowship consideration, candidates must be first-year doctoral or PhD-bound student, must hold an assistantship of at least 25% time, must have a GPA of 3.25 in their last 60 undergraduate credit hours plus a GPA of 3.25 in any graduate credit hours. Recipients must maintain at least a 3.25 overall graduate GPA in courses taken as a doctoral student and enroll in a minimum of 6 hours of coursework in both long semesters to retain their fellowship. Students who hold a 50% assistantship must maintain full-time enrollment of at least 9 hours. Additional requirements may be imposed by the department selection committee.

## **CE BS-Ph.D. Program**

### **Unconditional Admission**

A student must meet the following requirements for unconditional admission:

1. No Specific GPA requirement (application considered as a whole). However, an undergraduate coursework GPA of 3.5 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful applicant.
2. A Graduate Record Exam (GRE) Quantitative score of 740 (old score system) or 158 (new score system) or higher is typical of a successful applicant.
3. A competitive Graduate Record Examination Verbal score. A successful applicant typically has a Verbal score of 420 (old score system) or 148 (new score system).
4. For applicants whose native language is not English, a minimum score of 563 on the written Test of English as a Foreign Language (TOEFL) 222 on the computer TOEFL, 84 on TOEFL iBT, 40 on the TSE-A, 50 on the SPEAK, 86 on METLAB (Michigan English Language Assessment Battery), or 7 on the IELTS (International English Language Testing System). (METLAB and IELTS are used only when other tests are not available in the applicant's country.)
5. Favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

### **Probationary Admission**

If applicants do not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission may require that the applicant receive a B or better in at least their first 9 hours or graduate coursework applicable to their degree being sought at UT Arlington, take additional English courses, and/or deficiency courses as required.

### **Grade Requirements and Continuation**

The Civil Engineering Graduate Program has established rules, regulations, policies, and procedures for continuation in the graduate program and fulfilling graduation requirements. These can be found in the Civil Engineering Graduate Handbook available in the Civil Engineering Office.



In addition to the requirements of the Graduate School listed elsewhere, to continue in the program each civil engineering graduate student must:

1. Maintain an overall GPA of 3.0 or higher for the Master's program and a Ph.D. or a BS-PhD. student must maintain a minimum GPA of 3.5 or higher in their Ph.D. Civil Engineering coursework and a 3.25 gpa outside of CE average to take the comprehensive examination and to graduate from the Civil Engineering Ph.D. program or BS-Ph.D. program.

No organized course in which a grade of P is received can be used to satisfy course requirements for a graduate degree in civil engineering.

## **Degree Requirements**

The responsibility rests with each student for knowing the rules, regulations, and filing deadlines of the Graduate School and the Civil Engineering Committee on Graduate Studies (see Civil Engineering Graduate Handbook available in Civil Engineering Office). Requirements of the Graduate School and the Civil Engineering Committee on Graduate Studies must be met. The degrees offered and minimum course requirements are identified in the following paragraphs.

The Master of Science degree is a research-oriented program in which completion of a thesis is mandatory. The program consists of a minimum of 24 credit hours of coursework and an acceptable thesis (six credit hours). The Master of Engineering degree is an engineering practice-oriented program requiring a minimum of 36 credit hours. A maximum of six hours may be a special project. A final program examination is required of all master's degree candidates. Thesis degree candidates will be required to present an oral defense of the thesis. Non-thesis degree candidates will fulfill the program examination requirement upon the successful completion of CE 5193, Master's Comprehensive Examination. Candidates must enroll in CE 5193 in the semester they intend to graduate.

The Ph.D. degree is a research degree and, as such, requires the candidate to successfully carry out original, independent research in an area acceptable to the civil engineering faculty. Normally, a minimum of one year of advanced coursework beyond the master's degree is required.

The BS-Ph.D. degree is a research degree and, as such, requires the candidate to successfully carry out original, independent research in an area acceptable to the civil engineering faculty. Normally, a minimum of 48 credits of coursework beyond the bachelor's degree is required.

## **Dual Program Degree**

Students in the Civil Engineering program may participate in a dual degree program whereby they can earn a Master's Degree in Civil Engineering and a Master of City and Regional Planning. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours required to earn both degrees separately. The number of hours that may be jointly applied ranges from six to 18 hours, subject to the approval of each program's Committee on Graduate Studies and Graduate Advisor. Those interested in the dual degree program should consult the appropriate graduate programs for further information on course requirements, including information regarding which courses are suitable for joint application of credit hours.

To participate in the dual degree program, students must make a separate application to each program, be accepted by each program, and must submit separate Programs of Work for each degree showing only courses that meet requirements for the specified degree, including those joint courses that meet requirements for both degrees. A student must be admitted to the second program before completing more than 15 semester hours in the first, exclusive of leveling, deficiency, or foundation courses, and must complete the second degree within one academic year following completion of the first. See also the statement on "Dual Degree Programs" in the general admission section of this catalog.

## **Undergraduate Coursework Credit**

A limited number (not to exceed a total of nine semester hours) of the following courses may be applicable toward a graduate degree if approved in advance by the Civil Engineering Graduate Advisor.

**4301. CONSTRUCTION JOB COST CONTROL**

**4302. INFRASTRUCTURE EVALUATION AND MAINTENANCE MANAGEMENT**

**4305. TRENCHLESS TECHNOLOGY METHODS**

**4306. PIPELINE ASSET MANAGEMENT**

**4311. URBAN TRANSPORTATION INFRASTRUCTURE PLANNING**

**4312. STREET AND HIGHWAY DESIGN**

**4313. TRAFFIC ENGINEERING**

**4320. EARTH STRUCTURES DESIGN**

**4321. FOUNDATION ENGINEERING**

**4322. APPLICATIONS WITH GEOSYNTHETICS**

**4323. LANDFILL DESIGN**

**4324. MECHANICS OF MATERIALS II**

**4325. FUNDAMENTALS OF FINITE ELEMENT METHOD**

**4332. CONSTRUCTION METHODS AND MANAGEMENT**

**4330. HYDRAULIC DESIGN**

**4334. CONSTRUCTION EQUIPMENT, CONTRACTS AND SPECIFICATIONS**

**4336. HOT MIX ASPHALT DESIGN AND CONSTRUCTION**

**4337. PORTLAND CEMENT CONCRETE PAVEMENTS**

**4348. STRUCTURAL DESIGN IN METALS**

**4350. INTRODUCTION TO AIR POLLUTION**

**4351. PHYSICAL UNIT PROCESSES**

**4353. WATER CHEMISTRY**

**4354. INTRODUCTION TO HAZARDOUS WASTE MANAGEMENT**

**4355. DESIGN OF WATER AND WASTEWATER TREATMENT FACILITIES**

**4358. OPEN CONDUIT SYSTEM**

**4360. DESIGN OF STRUCTURAL MASONRY**

**4361. ADVANCED REINFORCED CONCRETE DESIGN**

**4363. FUNDAMENTALS OF PRESTRESSED CONCRETE**

**4365. STRUCTURAL WOOD DESIGN**

**4366. FUNDAMENTALS OF FIBER REINFORCED COMPOSITES**

**4368. ADVANCED STRUCTURAL ANALYSIS**

**4369. LOADS ON STRUCTURES**



## CE Courses

### CE5191 – ADVANCED STUDIES IN CIVIL ENGINEERING

1 Lecture Hour · 0 Lab Hours

Individual studies of advanced topics under the supervision of a professor or professors. Prerequisite: consent of instructor.

### CE5193 – MASTER'S COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Directed study, consultation, and comprehensive examination over coursework leading to the Master of Engineering degree in civil engineering. Required of all Master of Engineering students in the semester they plan to graduate.

### CE5300 – TOPICS IN CIVIL ENGINEERING

3 Lecture Hours · 0 Lab Hours

Topics of current interest in the field of civil engineering. The subject title is listed in the class schedule and in the student's record. Topics vary. May be repeated for credit when topic changes. Prerequisite: consent of instructor.

### CE5302 – PLAIN CONCRETE

3 Lecture Hours · 0 Lab Hours

Basic properties and interactions of hydraulic cements and mineral aggregates in concrete. Topics associated with the properties of plastic and hardened concrete and modifications through the use of admixtures. Also addressed are handling, and placement problems. Other topics will include quality control and acceptance testing; lightweight, heavyweight, and other special concretes. Prerequisite: Grade of C or better in CE 3261.

### CE5303 – INTRODUCTION TO FINITE ELEMENT

3 Lecture Hours · 0 Lab Hours

Stiffness method using basic equations and virtual work; element equations using shape functions for axial, beam, frame, two dimensional elements; stiffness method for three dimensional structures. Flexibility method; finite element modeling and optimization of idealized structures. Credit not granted for both CE 4325 and CE 5303. Prerequisite: Grade of C or better in CE 3341.

### CE5304 – LIGHT GAGE STEEL DESIGN

3 Lecture Hours · 0 Lab Hours

Covers structural design issues for cold formed steel structures. Includes initial buckling and post buckling, stiffened and unstiffened plate behavior, braced and unbraced beams, columns, connectors and shear diaphragms. Building codes, American Iron and Steel Institute (AISI) specifications, material specifications, test methods, and recommended practice documents. Prerequisite: Grade of C or better in CE 4348 or CE 5306.

### CE5305 – FIBER REINFORCED COMPOSITE DESIGN

3 Lecture Hours · 0 Lab Hours

Introduction to basic analysis, design and manufacture of composite materials for engineered structures. Fiber materials, tapes, cloths, resin systems, elastic constants, matrix formulation, theory of failure. The course will also cover an introduction to design with composites, preliminary design, optimization, processing variables, product design. Credit not granted for both CE 4366 and CE 5305. Prerequisite: Grade of C or better in CE 3341.

### CE5306 – STRUCTURAL STEEL DESIGN

**3 Lecture Hours · 0 Lab Hours**

The basic design course for steel structures emphasizing Load Resistant Factor Design Method. Topics include tension members, compression members, flexural members, and simple connections. Building codes, American Institute of Steel Construction (AISC) specifications, material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4348 and CE 5306. Prerequisite: Grade of C or better in CE 3341.

### **CE5307 – STRUCTURAL TIMBER DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Covers material grade, properties of wood, design criteria using structural lumber, glue laminated lumber and structural panels. Design of bending and compression members, trusses and shear diaphragms. Building codes, National Design Specifications (NDS), material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4365 and CE 5307. Prerequisite: Grade of C or better in CE 3341.

### **CE5308 – STRUCTURAL MASONRY DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Covers masonry unit type and grades of mortar types, reinforcing and connectors. Design of beams, columns, pilasters, and walls. Structural behavior and construction practices. Includes plain and reinforced masonry. Building codes, Masonry Standard Joint Committee (MSJC) specifications, material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4360 and CE 5308. Prerequisite: Grade of C or better in CE 3341.

### **CE5309 – PRESTRESSED CONCRETE**

**3 Lecture Hours · 0 Lab Hours**

Introduction to pre-tensioned and post-tensioned concrete structures, bonded and unbonded construction, hardware, stress calculations, section proportioning, flexural design, shear design, prestress losses, deflections, allowable stress, load-balancing, and ultimate strength design/analysis methods, including: partially prestressed systems shear design, analysis and design of composite beams, design of prestressed concrete bridges. Both American Concrete Institute (ACI 318-318) and American Association of State Highway and Transportation Officials Load and Resistance Factor Design (AASHTO LRFD) provisions will be discussed. Credit not granted for both CE 4363 and CE 5309. Prerequisite: Grade of C or better in CE 4347.

### **CE5310 – PLASTIC ANALYSIS AND DESIGN OF STRUCTURES**

**3 Lecture Hours · 0 Lab Hours**

Behavior of structural members beyond elastic range; plastic analysis of steel and concrete members and framed structures; stepwise incremental load and mechanism methods; yield/failure mechanisms for various types of frames. Use of nonlinear structural analysis programs and design code provisions. Application to earthquake resistant design. Prerequisite: CE 4347 and CE 4348; or equivalent.

### **CE5311 – ADVANCED STEEL DESIGN I**

**3 Lecture Hours · 0 Lab Hours**

Covers torsional design of beams, beams with web holes, composite design of beams, lateral-torsional buckling of beams, plate buckling, column design and behavior, frame stability, bracing requirements for compression members. Prerequisite: CE 4348 or CE 5306.

### **CE5312 – ADVANCED CONCRETE DESIGN I**

**3 Lecture Hours · 0 Lab Hours**

Includes structural design of slender columns, walls, truss model for shear and torsion; structural systems such as continuous beams, two-way slabs, yield-line theory and shear friction. Behavior of reinforced concrete structures, with emphasis on ductility and detailing of frames, slabs, and detailing for seismic loads will be covered. Building codes, American Concrete Institute (ACI) specifications, material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4361 and CE 5312. Prerequisite: CE 4347.

### **CE5314 – ADVANCED STEEL DESIGN II**

**3** Lecture Hours · **0** Lab Hours

Covers structural design of beam columns and building connections. Rigid frame and multi-story building design issues. Building codes, American Institute of Steel Construction (AISC) specifications, and recommended practice documents. Prerequisite: CE 4348 or CE 5306.

### **CE5315 – ADVANCED MECHANICS OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Analysis of stresses and strains at a point, stress-strain relationships, stresses due to various loading conditions, theories of failure, energy methods, shear center, unsymmetrical bending, curved beams, torsion in closed and open cell cross-sections, principles of plastic analysis, and buckling analysis. Credit not granted for both CE 4324 and CE 5315. Prerequisite: CE 2313.

### **CE5316 – CURRENT TOPICS IN ENVIRONMENTAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The course provides graduate students with background, knowledge, technology, theory, and application on some "emerging topics" in environmental engineering fields, including water pollution, water and wastewater treatment, post-treatment issues, remediation of contaminated groundwater, soil and sediment, waste management, sustainable engineering, and energy and the environment.

### **CE5317 – ENVIRONMENTAL ENGINEERING PROCESS AND ANALYSIS LAB**

**2** Lecture Hours · **3** Lab Hours

Lectures will cover advanced analytical procedures for the analyses of air, liquid, and other wastes, including optical, chromatographic, electrical, and other instrumental methods of analysis. In the laboratory, students will demonstrate and analyze environmental engineering processes (physical/chemical) for treatment of contaminants, including absorption, gas transfer, acid/base reactions, flocculation, sedimentation, filtration, ion-exchange, precipitation, oxidation-reduction, as well as basic reactor types (CSTR, plug flow, and reactors in series).

### **CE5318 – PHYSICAL-CHEMICAL PROCESSES I**

**3** Lecture Hours · **0** Lab Hours

Principles of unit process modeling using reactor and kinetic theory, theory and design of mixing, mass transfer, flocculation, sedimentation, filtration and gas transfer. Credit not granted for both CE 4351 and CE 5318. Prerequisite: CE 3131 and CE 3334; or consent of instructor.

### **CE5319 – PHYSICAL-CHEMICAL PROCESSES II**

**3** Lecture Hours · **0** Lab Hours

Principles of water chemistry applied to the theory and design of unit processes including coagulation, precipitation, corrosion, oxidation-reduction, and membrane processes. Credit not granted for both CE4353 and CE5319 Prerequisite: CE 3131 and CE 3334; or consent of instructor.

### **CE5321 – ENGINEERING FOR ENVIRONMENTAL SCIENTISTS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of engineering science applicable to the comprehension and design of engineered environmental systems. Includes water and air quality indices; kinetic and reactor theory; mass and energy balances; fluid system theory; and applications of physical, chemical and biological processes in the design of engineered environmental systems. May not be used to satisfy any of the requirements for a graduate degree in Civil Engineering. Prerequisite: PHYS 1441, CHEM 1442, and MATH 2425.

### **CE5325 – BIOLOGICAL PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Biological processes used in water quality control. Includes principles from microbiology and biochemistry applied to suspended and attached growth systems. Prerequisite: CE 5318.

### **CE5326 – WATER AND WASTEWATER TREATMENT FACILITIES DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of facilities commonly used in water and wastewater treatment plants including pumps, pipelines, channels, flow measurement and control devices, screens, grit removal, mixing, sludge removal, aeration equipment, and chemical feed and storage. Materials of construction, process control interface, and operation and maintenance factors are also discussed. Credit not granted for both CE 4355 and CE 5326. Prerequisite: CE 3131, CE 3142, and CE 3334.

### **CE5328 – FUNDAMENTALS OF AIR POLLUTION**

**3** Lecture Hours · **0** Lab Hours

An introduction to the air pollution field including: atmosphere and ideal gas law; pollutant types, sources, effects; Clean Air Act; air pollution measurement; overviews of air pollution meteorology, dispersion modeling, air pollution control, and mobile sources; international air pollution; and indoor air quality. Credit not granted for both CE 4350 and CE 5328. Prerequisite: concurrent enrollment in CE 3334 or CE 5321 or consent of instructor.

### **CE5329 – ENVIRONMENTAL RISK BASED CORRECTIVE ACTION**

**3** Lecture Hours · **0** Lab Hours

Process for the assessment and response to contamination; integrating risk and exposure practices to ensure protection of human health and environment. Includes characterization, EPA tier approach, general aspects of toxicology, dose exposure, pathways, receptors, migration and risk assessment. Prerequisite: consent of instructor.

### **CE5330 – CHARACTERISTICS OF TRAFFIC**

**3** Lecture Hours · **0** Lab Hours

The fundamental elements of traffic - the driver, the vehicle, and the roadway - are considered and then extended into studies of streams of traffic flow. Techniques of conducting traffic engineering studies, including methods of measuring speed, volume, and density, are covered along with methods for the determination of capacity on freeways and rural highways (uninterrupted flow facilities). Parking and accident studies are also included. Prerequisite: CE 3302; and CE 3301 or concurrent registration therein.

### **CE5331 – TRAFFIC ENGINEERING OPERATIONS**

**3** Lecture Hours · **0** Lab Hours

Methods of traffic regulation and control optimization. Traffic laws, motorist communication by means of traffic control devices, and the design and operation of both fixed time and actuated traffic signals at intersections. Analysis and design techniques for intersections using capacity and level of service concepts. Credit will not be granted for both CE 4313 and CE 5331. Prerequisite: CE 3302; and CE 3301 or concurrent registration therein.

### **CE5332 – HIGHWAY DESIGN**

**3** Lecture Hours · **0** Lab Hours

Geometric considerations necessary for the design of city streets, highways, and freeways such as the cross sections, vertical and horizontal alignment, sight distances and stopping distances. Includes the design of maneuver areas, channelization, ramps, intersections, and interchanges. Credit will not be granted for both CE 4312 and CE 5332. Prerequisite: CE 3302.

### **CE5333 – TRAFFIC CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Control algorithms and optimization of splits, offsets, and cycle lengths for arterial progression and traffic signals in networks; computer simulation techniques; problem solving with computer simulation and optimization packages; freeway control using ramp meters and dynamic motorist communications. Prerequisite: CE 4313 or CE 5331.

### **CE5335 – AIRPORT ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Airport master planning, for forecasting air travel demand, airside capacity, passenger terminal design, air traffic control, land access planning and design, landside operations, air cargo facility design. Prerequisite: CE 3302.

### **CE5336 – PAVEMENT DESIGN**

**3** Lecture Hours · **0** Lab Hours

Principles and theoretical concepts of rigid and flexible pavements for highways and airfields; effects of traffic loads, natural forces, and material quality; current design practices; and life cycle cost analysis. Prerequisite: CE 3302, CE 3261, and CE 3343.

### **CE5337 – URBAN TRANSPORTATION PLANNING**

**3** Lecture Hours · **0** Lab Hours

Theory and application of a comprehensive urban transportation planning methodology. Basic studies of population dynamics, urban growth, land use, forecasting trip generation and distribution, traffic assignment, mode split, evaluation, simulation models, characteristics of mass transit and other non-auto modes, and system design and evaluation. Credit will not be granted for both CE 4311 and CE 5337. Prerequisite: CE 3301 and CE 3302; or consent of instructor.

### **CE5338 – SYSTEM EVALUATION**

**3** Lecture Hours · **0** Lab Hours

Techniques necessary to perform economic and multi-criteria evaluations of civil engineering projects. These will be used to assess the strengths and weaknesses of different decision-making strategies and analyze contemporary topics and case studies in making civil engineering decisions. Prerequisite: CE 3310 or IE 3312 or equivalent or consent of instructor.

### **CE5341 – PAVEMENT EVALUATION, REHABILITATION AND MANAGEMENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Pavement inventory; condition and structural evaluation techniques; serviceability concepts; deterioration modeling; maintenance vs. rehabilitation vs. reconstruction; economic considerations, selection of project alternatives and life cycle cost analysis. Prerequisite: CE 5336 or equivalent

### **CE5344 – CONSTRUCTION METHODS: FIELD OPERATIONS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the methods, equipment, and management techniques used in the construction industry. Topics include equipment operating characteristics, job site safety, and field management. Credit not granted for both CE 4332 and CE 5344. Prerequisite: CE 3343.

### **CE5345 – INFRASTRUCTURE EVALUATION, MAINTENANCE, AND RENEWAL**

**3** Lecture Hours · **0** Lab Hours

This course is designed for engineers and managers involved in infrastructure development, sustainability, and replacement. Topics include asset management, inspection, evaluation, maintenance, and renewal alternatives for waste collection and water distribution systems, surface and subsurface drainage, pavements, bridges, culverts, buildings, and other structures. Credit not granted for both CE 4302 and CE 5345. Prerequisite: consent of instructor.

### **CE5346 – OPEN CHANNEL FLOW**

**3** Lecture Hours · **0** Lab Hours

Open channel hydraulic principles, flow classification, backwater curves, transitions, obstructions, bends, flood flow computations, and urban watershed applications. Credit not granted for both CE 4358 and CE 5346. Prerequisite: CE 3305 and CE 4328; or consent of instructor.

### **CE5347 – ADVANCED HYDROLOGY**

**3** Lecture Hours · **0** Lab Hours

Elements of hydrometeorology, infiltration, soil moisture, hydrographs, rainfall runoff relationships, and effects of these factors with regard to water resources, urban watersheds, flood control, and environmental issues. Prerequisite: CE 3309 and CE 4328.

### **CE5348 – GROUNDWATER HYDROLOGY**

3 Lecture Hours · 0 Lab Hours

Hydrology and hydrogeology of groundwater to include aquifer and vadose properties and measurements, basic flow systems and solutions, well systems, elementary contaminate transport, water quality, recharge, subsidence, flow system analysis, flow nets, and leaky aquifers. Prerequisite: CE 3309 or consent of instructor.

### **CE5351 – ADVANCED STRUCTURAL ANALYSIS I**

3 Lecture Hours · 0 Lab Hours

Advanced analysis of indeterminate beams, frames, trusses, arches, and cables. Credit will not be given for both CE 5351 and CE 4348. Prerequisite: CE 3341.

### **CE5353 – ADVANCED HYDRAULICS**

3 Lecture Hours · 0 Lab Hours

Flow resistance, St. Venant equations, solution of St. Venant by finite difference methods, dam break problem, water hammer intro to finite elements to open channel flow. Credit will not be granted for both CE 4330 and CE 5353. Prerequisite: CE 5346 and CE 5347; or consent of instructor.

### **CE5354 – WATER RESOURCES PLANNING**

3 Lecture Hours · 0 Lab Hours

Historical and current water development concepts. Administrative and allocation concerns. General principles and procedures of water resource planning includes regional, multipurpose, economic and systems considerations. Prerequisite: CE 3301, CE 3309, and IE 3312; or consent of instructor.

### **CE5356 – SURFACE WATER QUALITY MODELING**

3 Lecture Hours · 0 Lab Hours

Contaminant transport and fate in surface water. Engineering methods assessing surface water and transport for water and sediment quality. Modeling dissolved oxygen, chemicals and waterborne substances. Prerequisite: CE 5346.

### **CE5357 – HYDROLOGIC TECHNIQUES**

3 Lecture Hours · 0 Lab Hours

A study of current hydrologic techniques and methods for the analysis of hydrologic variables necessary in the design of projects such as bridges, culverts, reservoirs. Techniques involve extreme value statistics, model hydrographs, deterministic and stochastic methods for data analysis. Prerequisite: CE 5347 or consent of instructor.

### **CE5358 – SOLID AND HAZARDOUS WASTE MANAGEMENT**

3 Lecture Hours · 0 Lab Hours

Sources, chemistry, monitoring, and classifications of hazardous wastes. Discussions of environmental hazards, legal aspects, transportation, detoxification, storage, and disposal and incineration. Credit not granted for both CE 4354 and CE 5358. Prerequisite: CE 3334 or CE 5321 or consent of instructor.

### **CE5359 – GROUNDWATER CONTAMINANT MODELING**

3 Lecture Hours · 0 Lab Hours

Study of sources and fates of contamination in groundwater. Mathematical modeling of reactive and nonreactive pollutant movement. Aquifer restoration strategies. Prerequisite: CE 5348.



## **CE5360 – UNSATURATED SOIL MECHANICS II**

**3** Lecture Hours · **0** Lab Hours

Advanced principles of unsaturated soil behavior in light of critical state based soil mechanics. Topics: Cam-Clay model for saturated soils, Cam-Clay model for unsaturated soils, and calibration/programming of Barcelona Basic Model for unsaturated soils.

## **CE5361 – DESIGN AND CONSTRUCTION OF ASPHALT CONCRETE**

**3** Lecture Hours · **0** Lab Hours

An in-depth study of the properties of constituent materials for asphalt concrete mixtures. Design methods for Hot-Mixes Asphalt (HMA) and Stone Matrix Asphalt (SMA). Theory and practice of asphalt concrete mix for pavements, including specifications and construction methods for hot-mix asphalt and surface treatments. Maintenance and rehabilitation of flexible pavements. Relationships of material engineering properties to pavement design and performance. Credit not granted for both CE 4336 and CE 5361. Prerequisite: CE 3261 or equivalent.

## **CE5362 – RIGID PAVEMENTS**

**3** Lecture Hours · **0** Lab Hours

Portland cement concrete mix design and production. Paving operations. Saw and seal operations. Subgrade preparation. Base selection. Drainage selection, design and construction. Bonded and unbonded concrete overlays. Whitetopping and ultra-thin whitetopping. Concrete pavement restoration; quality assurance and quality control in concrete pavement construction. Credit not granted for both CE 4337 and CE 5362. Prerequisite: CE 3261 or equivalent.

## **CE5363 – CONSTITUTIVE MODELING OF SOILS**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of elasto-plastic behavior of soils along axisymmetric stress paths, shear strength of soils in light of critical state soil mechanics, and constitutive models to predict soil response under saturated conditions, including Cam Clay and modified Cam Clay models. Prerequisite: CE 3343 or consent of instructor.

## **CE5364 – FOUNDATION ANALYSIS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

The design, construction, and performance of footings, rafts, and piles founded on or in sands, clays, silts, stratified soils, and weak rock. Includes the influence of various geologic terrain on selecting foundation type and constructability, in-situ investigations to determine material design parameters, bearing capacity, and settlement of foundations. Credit not granted for both CE 4321 and CE 5364. Prerequisite: CE 3343.

## **CE5365 – THEORETICAL SOIL MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Theory of consolidation, magnitude, time rate, pore pressure dissipation with variable construction rate and layered soils. Secondary compression, preconsolidation, and preloading. Shear strength of soil. Critical state soil mechanics, dilation and strain-softening in drained shear, pore pressure response in undrained shear, including static liquefaction. Prerequisite: CE 3343 or consent of instructor.

## **CE5366 – SOIL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of mechanical behavior and characterization of soils and earth structures subjected to dynamic loads, including wave propagation in soils, dynamic soil properties, liquefaction of soils, dynamic bearing capacity of shallow foundations, seismic design of retaining walls, and seismic slope stability. Prerequisite: CE 2210 and CE 3343; or consent of instructor.

## **CE5367 – DESIGN OF EARTH STRUCTURES**

**3** Lecture Hours · **0** Lab Hours

Study of the states of stress and analysis techniques associated with cuts, fills, and retaining structures. Includes slope stability, embankment reinforcement, conventional and reinforced earth retaining walls,

excavation bracing, and sheet pile wharf structures. Credit not granted for both CE 4320 and CE 5367. Prerequisite: CE 3343 or consent of instructor.

### **CE5368 – UNSATURATED SOIL MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of the mechanical behavior of unsaturated soils, including stress and volumetric state variables, matrix suction measurements and soil-water characteristic curves, shear-strain-strength and volume change responses, suction-controlled laboratory testing techniques and constitutive modeling. Prerequisite: CE 3343 and CE 5363; or consent of instructor.

### **CE5369 – COMPUTATIONAL GEOTECHNICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to analytical, finite differences, and finite element modeling, analyses of embankments, earth dams, slopes, excavation support systems including soldier pile and diaphragm walls, shallow and deep foundation systems, and other geotechnical structures using different geotechnical software. Prerequisite: CE 3343 or consent of instructor.

### **CE5370 – EXPERIMENTAL SOIL MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of experimental studies of soil behavior, soil properties and their laboratory test methods which include consolidation, direct shear, static triaxial, cyclic triaxial, resonant column, Bender elements and other advanced geotechnical laboratory tests, instrumentation and measurement techniques. Prerequisite: CE 3343 or consent of instructor.

### **CE5371 – SOIL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of soil behavior, bonding, crystal structure, surface characteristics, clay mineralogy, soil-water movement, fabric, effective stress concepts, conduction phenomena, consolidation, and shear strength. Prerequisite: CE 3343 or consent of instructor.

### **CE5372 – GEOSYNTHETICS**

**3** Lecture Hours · **0** Lab Hours

Geosynthetics properties and testing, design of geotextiles, geogrids, geonets, and geomembranes for applications in separation, pavement, embankment and retaining wall reinforcement, soil stabilization, filtration, drainage and liquid barrier, construction guidelines and case histories. Credit not granted for both CE 4322 and CE 5372. Prerequisite: CE 3343 or consent of instructor.

### **CE5373 – ENVIRONMENTAL GEOTECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Physical and chemical principles of clays, clay mineralogy, coupled flow, hydraulic conductivity, in situ and laboratory tests, chemical transport, adsorption of chemicals, risk assessment and soil remediation technologies, bioremediation, phytoremediation, electrokinetics and soil washing, waste containment. Prerequisite: CE 5371 or consent of instructor.

### **CE5374 – GROUND IMPROVEMENT**

**3** Lecture Hours · **0** Lab Hours

Introduction and types of ground improvement for different problem soils including soft and expansive soils, shallow and deep soil densification, sand drains and wick drains, chemical modification, chemical binders and mechanisms of ground improvement, different types of grouting, deep mixing, stone columns, soil nailing, ground anchors, geosynthetics, MSE walls, reinforced slopes. Prerequisite: CE 3343 or consent of instructor.

### **CE5375 – GEOTECHNICAL ASPECTS OF LANDFILLS**

**3** Lecture Hours · **0** Lab Hours



Introduction and types of landfills, landfill site selection, siting and configuration, compacted and geosynthetic clay liners, final cover design, landfill settlement and slope stability, post closure uses of landfills, leachate and gas generation, collection and removal system, bioreactor landfills and future trends. Credit not granted for both CE 4323 and CE 5375. Prerequisite: CE 3343 or consent of instructor.

### **CE5376 – GIS IN GEOTECHNICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to GIS, Geographical Information Systems, (ArcInfo/ArcView) based applications in geotechnical engineering, including bore-log database management and profiling, spatial analyses and assessment of liquefaction, ground motion amplification, landslide, and groundwater contamination hazard potentials. Prerequisite: CE 3343 or consent of instructor.

### **CE5377 – CONSTRUCTION PROJECT MANAGEMENT & JOB COSTING**

**3** Lecture Hours · **0** Lab Hours

Financial aspects and job costing of a construction project. Includes project management principles, budgets, cost codes, cost-to-complete, and financial reports specific to the management of a construction company and project control. Credit not granted for both CE 4301 and CE 5377. Prerequisite: consent of instructor.

### **CE5378 – CONSTRUCTION CONTRACTS, SPECIFICATIONS, & ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Types of construction contracts, contractual relationship between general contractor and owner, contractual relationship between general contractor and subcontractors, legal issues in construction administration, insurance, and concepts in value engineering. Reading and evaluating specifications, CSI Master Format. Credit not granted for both CE 4334 and CE 5378. Prerequisite: consent of instructor.

### **CE5379 – CONSTRUCTION COST ESTIMATING**

**3** Lecture Hours · **0** Lab Hours

Types of estimates, development of unit costs, quantity takeoff, cost estimating using manual methods and computerized cost estimating, budgets, and costs. Prerequisite: concurrent enrollment in CE 5386.

### **CE5383 – EXPERIMENTAL STRESS ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Introduction to experimental stress-analysis techniques. Theory and application of mechanical strain gages, electrical strain gages, introduction to photoelastic and thermal techniques, and brittle coatings. Prerequisite: CE 2313.

### **CE5384 – CONCRETE BRIDGE DESIGN**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of concrete bridges for vehicles using American Association of State Highway and Transportation Officials Load and Resistance Factor Design (AASHTO LRFD) specifications. Covers bridge type selection, preliminary design, bridge design loads, bridge deck design, shear design including strut-and-tie model, AASHTO limit states, torsion design, substructure design, and construction practices maintenance issues. Prerequisite: Grade of C or better in CE 4363 or CE 5309.

### **CE5385 – STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Equation of motion for single degree of freedom systems including: free vibration; harmonic and periodic excitations; arbitrary, step and pulse excitations. Dynamic response of multi degree of freedom systems including: free vibration; computation of vibration properties of structures; damping in structures; modal analysis; and response history analysis. Dynamic analysis of systems with distributed mass. Prerequisite: CE 5303 or concurrent registration.

## **CE5386 – CONSTRUCTION PLANNING & SCHEDULING**

**3** Lecture Hours · **0** Lab Hours

Construction productivity, planning, & scheduling of operations, flow charts, linear programming, critical path method (CPM), program evaluation review techniques (PERT), precedence networks. Computer methods. Prerequisite: concurrent enrollment in CE 5379.

## **CE5387 – CONSTRUCTION PRODUCTIVITY**

**3** Lecture Hours · **0** Lab Hours

Evaluation of construction project management's effectiveness. An investigation of the advanced techniques required for improvement of construction projects including time, cost, quality management, preplanning, field evaluation techniques, time-lapse photograph, safety, human factors, and communications. Prerequisite: CE 5379 and CE 5386; or consent of instructor.

## **CE5388 – PIPELINE CONSTRUCTION AND TRENCHLESS TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Pipeline and utility design, construction and renewal. Topics include pipeline infrastructure structural considerations, planning and construction considerations, pipe materials, and trenchless technologies. Credit not granted for both CE 4305 and CE 5388. Prerequisite: graduate standing and consent of instructor.

## **CE5389 – PIPELINE INFRASTRUCTURE ASSET MANAGEMENT AND SUSTAINABILITY**

**3** Lecture Hours · **0** Lab Hours

Pipeline infrastructure inventory, inspection, and life cycle costs. Topics include pipeline deterioration parameters, asset management technologies, risk assessment, government regulations and case studies. Credit not granted for both CE 4306 and CE 5389. Prerequisite: graduate standing and consent of instructor.

## **CE5391 – ADVANCED STUDIES IN CIVIL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual studies of advanced topics under the supervision of a professor or professors. Graded F, P, R. Prerequisite: consent of instructor.

## **CE5392 – SPECIAL TOPICS IN AIR POLLUTION**

**3** Lecture Hours · **0** Lab Hours

Sources, transport, fate, characteristics, and control of air contaminants. May be repeated for credit when topics vary. Prerequisite: Graduate standing and consent of instructor  
Topic 1 - Air Pollution Chemistry and Meteorology Designed to give students an understanding of how pollutants react and travel in the atmosphere. Topics include: chemistry of ground-level ozone formation, ozone layer depletion, acid deposition, fine particle formation, and climate change; meteorological variables impacting pollutant transport in the atmosphere, such as atmospheric stability, turbulence and wind speed.  
Topic 2 Air Quality Modeling Mathematical models for predicting air pollutant transport and transformation in the atmosphere, to evaluate health impacts and potential control strategies. The course covers 4 types of air quality models: box models, photochemical grid models, Gaussian dispersion models (major emphasis), and receptor models.  
Topic 3 A Transportation and Air Quality Generation of pollutants in gasoline and diesel engines. Emission estimation via measurement and modeling (MOBILE 6). Prediction of pollutant concentrations near roadways. Vehicle emission control using alternative engine design, alternate fuels, add-on technology. Travel demand management and transportation control measures for emission reduction.  
Topic 4 - Air Pollution Control System Design Design of air pollution control systems for stationary sources, including particle control technologies (cyclones, electrostatic precipitators, fabric filters and wet scrubbers) and gaseous control technologies (incinerators, adsorption systems, absorption systems, biofilters, nitrogen oxide controls, mercury controls, and carbon dioxide controls).

## **CE5395 – MASTER'S PROJECT**

**3** Lecture Hours · **0** Lab Hours

Non-thesis master's degree candidates with approval to include a project in their program. Graded F, P, R. Prerequisite: consent of instructor and approval of Civil Engineering Graduate Advisor.

### **CE5398 – THESIS**

3 Lecture Hours · 0 Lab Hours

Research and preparation pertaining to the master's thesis. Graded F, R.

### **CE5695 – MASTER'S PROJECT**

6 Lecture Hours · 0 Lab Hours

Non-thesis master's degree candidates with approval to include a project in their program. Graded F, P, R. Prerequisite: consent of instructor and approval of Civil Engineering Graduate Advisor.

### **CE5698 – THESIS**

6 Lecture Hours · 0 Lab Hours

Research and preparation pertaining to the master's thesis. Graded F, P, R.

### **CE6197 – RESEARCH IN CIVIL ENGINEERING**

1 Lecture Hour · 0 Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6297 – RESEARCH IN CIVIL ENGINEERING**

2 Lecture Hours · 0 Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6300 – ADVANCED TOPICS IN CIVIL ENGINEERING**

3 Lecture Hours · 0 Lab Hours

Topics of current interest in the field of civil engineering. The subject title is listed in the class schedule and in the student's record. Topics vary. May be repeated for credit when topic changes. Prerequisite: consent of instructor.

### **CE6306 – PUBLIC TRANSIT PLANNING & OPERATIONS**

3 Lecture Hours · 0 Lab Hours

Theory and application of technologies used for transit demand analysis, routing, scheduling, evaluation, crew assignment, maintenance strategies, and management. Land-use impact on public transit policy and operation is also introduced. Prerequisite: CE 4311 or CE 5337 or equivalent.

### **CE6308 – ANALYTICAL MODELS IN TRANSPORTATION**

3 Lecture Hours · 0 Lab Hours

Development and analysis of mathematical models in transportation. Topics include travel demand, trip generation, distribution, mode choice, assignment, plan evaluation, spatial distribution, traffic control and flow models; principles of behavioral, econometric, deterministic, probabilistic, and chaotic simulation models, and their applications. Prerequisite: CE 4311 or CE 5337.

### **CE6309 – TRAFFIC FLOW THEORY**

3 Lecture Hours · 0 Lab Hours

Speed, density relationships of vehicular traffic flow; statistical aspects of traffic events and queuing processes; deterministic models and simulation models of traffic flow behavior; applications of flow theory to traffic problem solutions. Prerequisite: CE 5330 or equivalent.

### **CE6311 – ADVANCED FOUNDATION DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Subsurface investigations; advanced design of mat foundations, retaining walls, reinforced retaining walls, anchor tiebacks, driven piles, and piers; destructive and nondestructive tests on deep foundations; group piles, laterally loaded piles, and design of foundations in expansive soils. Prerequisite: CE 4321 or CE 5364.

### **CE6312 – IN-SITU TESTING**

**3 Lecture Hours · 0 Lab Hours**

Site characterization, in-situ testing procedures, and soil property interpretation methods for standard penetration tests, cone penetration tests utilizing friction cone, piezocone, and seismic cone, dilatometer, vane shear, pressure meter, and bore hole shear tests, non-destructive tests for pavement subgrade characterization. Prerequisite: CE 3143 or CE 5370 or consent of instructor.

### **CE6313 – DESIGN OF EARTH DAMS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to dams and levees, failure and damage analysis, erosion, seepage, filter, drainage design, foundation preparation for problematic subsoil conditions, seepage induced slope stability issues, desiccation crack and erosion control, numerical modeling and case studies, seismic issues. Prerequisite: CE 5367 or consent of instructor.

### **CE6314 – STORMWATER MODELING**

**3 Lecture Hours · 0 Lab Hours**

Hydrologic modeling methods and issues, urban watershed modeling, methods of system analysis; analysis of hydrologic components as linear and nonlinear systems, watershed response, kinematic wave; and model parameters optimization. Prerequisite: CE 5346 and CE 5347; or consent of instructor.

### **CE6316 – SEDIMENT TRANSPORT**

**3 Lecture Hours · 0 Lab Hours**

Sourcing the sediment influx, the settling velocity, Shields critical shear stress, design with critical shear, bedload transport equations, suspended load transport, total transport equation, regime theory as index of stability. Prerequisite: CE 4358 or CE 5346; and CE 5347.

### **CE6325 – ADVANCED PHYSICAL-CHEMICAL PROCESSES**

**3 Lecture Hours · 0 Lab Hours**

The course represents the fundamentals and applications of various advanced physical and chemical unit operations and processes for controlling drinking water quality. The course will cover 1) general overview on the standard, regulations, and goals of drinking water quality, 2) detailed discussion of the theory, design, and operation of advanced physical and chemical unit processes, including but not limited to, sorption, centrifugation, osmotic pressure, membrane separation, chemical oxidation and advanced oxidation, UV technology, and disinfection, and 3) post treatment issues. Prerequisite: CE 5318 and CE 5319.

### **CE6350 – ADVANCED CONCRETE DESIGN II**

**3 Lecture Hours · 0 Lab Hours**

Detailing of connections for ductility demands, modified compression field theory, strut and tie modeling of systems and areas, and design of shear walls and hybrid construction. Behavior of reinforced concrete structures, with emphasis on ductility and detailing. Prerequisite: CE 5312.

### **CE6352 – ADVANCED FINITE ELEMENT METHOD**

**3 Lecture Hours · 0 Lab Hours**

Weak and mixed formulations; Eulerian and Lagrangian mesh formulations; plane stress and plane strain, axisymmetric element equations; two dimensional elasticity equations; 2-D and 3-D isoparametric formulations; error analysis and convergence criteria for linear/nonlinear problems; nonlinear-geometric, materials, and contact formulation; cyclic plasticity formulation. Prerequisite: CE 5303.

## **CE6354 – REPAIR AND REHABILITATION OF STRUCTURES**

**3** Lecture Hours · **0** Lab Hours

Causes of distress, evaluation methods for condition, strength, serviceability; repair materials, repair techniques, and quality control methods for repair of concrete. Criteria for rehabilitation; retrofit techniques for change in function, loading, and seismic forces. Prerequisite: CE 5311 and CE 5312.

## **CE6355 – EARTHQUAKE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Earthquake characteristics; design of structures to resist earthquakes. Characterization of earthquakes for design. Development of design criteria for elastic and inelastic structural response. Seismic performance of various structural systems. Prediction of nonlinear seismic behavior. Basis for code design procedures. Preliminary design of steel and reinforced concrete structures. Evaluation of earthquake vulnerability of existing structures and rehabilitation of seismic deficiencies. Prerequisite: CE 5385.

## **CE6356 – ENERGY METHODS**

**3** Lecture Hours · **0** Lab Hours

Principles of mechanics; elastic beams and frames; variational method: curved cantilever beams; Rayleigh Ritz method; special form of Euler equation; differential equation for beam; variation of double integral; first variation of triple integral. Deformable bodies using indicial notation; buckling using energy method; Lagrange and Hamilton Principles; theory and analysis of plates; theory and buckling; and theory of vibration. Prerequisite: CE 5315.

## **CE6357 – STRUCTURAL STABILITY**

**3** Lecture Hours · **0** Lab Hours

Buckling of columns; approximate method of analysis for buckling problems; beam columns; structural system stability (buckling of frames); lateral torsional buckling; buckling of plates; and buckling of axially compressed cylindrical shells. Prerequisite: CE 5303 or concurrent registration therein.

## **CE6358 – ADVANCED ENGINEERING ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Introduction to matrices; vector spaces; tensors, Eigenvalue problems. Solution to discrete systems: steady state problems and propagation problems. Solution of continuous systems: differential formulation; variational method; and weighted residual methods. Solution of linear and nonlinear static equilibrium equations. Prerequisite: CE 5315 and MATH 3319.

## **CE6359 – PLATES AND SHELLS**

**3** Lecture Hours · **0** Lab Hours

Introduction to differential geometry; equilibrium of plate and shell elements; equilibrium equations for shell revolutions; compound shells; nonsymmetrical loaded shell; anti-symmetrical loaded shell; membrane theory; constitutive law; analysis of plates and shells using energy method; and bending and stability of plates and shells. Prerequisite: CE 5315.

## **CE6360 – THEORY OF ELASTICITY**

**3** Lecture Hours · **0** Lab Hours

Introductory mathematical concepts: vector calculus; tensor algebra. Theory of deformation; strain displacement relations in orthogonal curvilinear coordinate systems. Theory of stress; differential equation of equilibrium in curvilinear spatial coordinates; three dimensional equations of elasticity; nonlinear constitutive relationship; plane theory of elasticity; and plane elasticity in polar coordinates. Prerequisite: CE 5315.

## **CE6391 – ADVANCED PROJECTS IN CIVIL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Projects related to advanced topics in graduate area. Graded F, P, R. Prerequisite: consent of instructor and approval of Civil Engineering Graduate Advisor.

### **CE6397 – RESEARCH IN CIVIL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Preparation of a doctoral dissertation in civil engineering. Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree.

### **CE6697 – RESEARCH IN CIVIL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Preparation of a doctoral dissertation in civil engineering. Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree.

### **CE6997 – RESEARCH IN CIVIL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Preparation of a doctoral dissertation in civil engineering. Graded F, P, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree.

### **CE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Computer Science and Engineering

College of Engineering

**Chair Hong Jiang**

**Chair Fillia Makedon**

Web [www.cse.uta.edu](http://www.cse.uta.edu)

Email [info@cse.uta.edu](mailto:info@cse.uta.edu)

Phone 817.272.3785

Fax 817.272.3784

**300 Nedderman Hall**

---

### Degrees / Certificates

#### Master's Degrees

Computer Engineering, M.S.

Computer Science, M.S.

Software Engineering, M.SWEN.

#### Doctoral Degrees

Computer Engineering, B.S. to Ph.D.

Computer Engineering, Ph.D.

Computer Science, B.S. to Ph.D.

Computer Science, Ph.D.

Mathematical Sciences, Computer Science, Ph.D.

#### Certificates

Computer Science Unmanned Vehicle Systems Certificate

---

### Graduate Faculty

[Sajib Datta](#)

[Hong Jiang](#)

[Song Jiang](#)

[Taylor Johnson](#)

[Jiang Ming](#)

[Jia Rao](#)

#### Professor

[Ishfaq Ahmad](#)

[Upendranath Chakravarthy](#)

[Gautam Das](#)

[Sajal Das](#)

[Chris Ding](#)

[Ramez Elmasri](#)

[Farhad Kamangar](#)

[Mohan Kumar](#)

[David Kung](#)



**Fillia Makedon**  
**Lynn Peterson**  
**Roger Walker**  
**Gergely Zaruba**

**Associate Professor**

**Vassilis Athitsos**  
**Hao Che**  
**Leonidas Fegaras**  
**Jean Gao**  
**Heng Huang**  
**Manfred Huber**  
**Yu Lei**  
**Chengkai Li**  
**Donggang Liu**  
**Yonghe Liu**  
**Bob Weems**  
**Matthew Wright**

**Assistant Professor**

**Christoph Csallner**  
**Junzhou Huang**  
**Gian-Luca Mariottini**

**Senior Lecturer**

**Darin Brezeale**  
**Bahram Khalili**  
**David Levine**  
**James Mike O'Dell**

---

## Graduate Advisors

**Sajib Datta**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science Unmanned Vehicle Systems Certificate*  
*Software Engineering, M.SWEN.*

**Ramez Elmasri**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Bahram Khalili**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**James Mike O'Dell**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

---



## Department Information

### Courses

# Department Information

#### Objective

#### Admission

- [Fellowships](#)

#### Continuation

#### Degree Requirements

- [Master of Science in Computer Science - Thesis](#)
- [Master of Science in Computer Science and Engineering - Thesis](#)
- [Master of Science in Computer Science - Non Thesis](#)
- [Master of Science in Computer Science and Engineering](#)
- [B.S. to Ph.D. Track](#)
- [Ph.D. \(Computer Science\)](#)
- [Ph.D. \(Computer Science and Engineering\)](#)

## Objective

The purpose of the graduate programs in Computer Science and Computer Science and Engineering is to facilitate the student's continued professional and scholarly development. The Master of Science (M.S.) programs are designed to extend the student's knowledge and emphasize a particular area of concentration. The Master of Software Engineering (M.SW.Engr.) program is designed to provide the student with the opportunity for professional development in the software engineering field. Students who have completed a bachelor's degree in CS, CSE wishing to pursue a doctoral degree may apply for admission in the B.S. to Ph.D. track. The admission requirements to this highly competitive track are the same as those for "advanced admission" (see Special Admissions Programs). The Doctor of Philosophy (Ph.D.) programs are designed to prepare the student to conduct research and development in an area of concentration.

Typical areas of concentration include

1. Computer Systems: parallel processing, quality-of-service and resource management in distributed systems, scheduling and load balancing for parallel and distributed systems, tools for parallel programming, performance evaluation, fault-tolerant computing, interconnection networks, multimedia systems, real-time systems, memory system design;
2. Intelligent Systems: neural networks, machine learning, planning, scientific visualization, pattern recognition, natural language processing, multi-agent environments, decision support;
3. Software Engineering: requirements engineering, incremental delivery, conceptual modeling, scenario-based techniques, formal specifications, object-oriented software engineering, design methodologies, software testing, software maintenance, software re-engineering, software processes, real-time systems;
4. Database: temporal databases, object-oriented databases, database models and languages, distributed database systems, indexing and hashing techniques, conceptual modeling, data security, logic and databases, query optimization, relational design theory, user interfaces, data repositories.
5. Communications: networks, wireless communication, distributed computing, mobile computing, multimedia systems.

## Admission

The CSE graduate admission committee bases its decision for graduate admission on the following criteria (in no specific order):

1. An overall GPA of 3.0 or higher in undergraduate coursework.
2. A GPA of 3.2 or higher on CS/CSE related coursework in the last two years of undergraduate degree.
3. Relevance of the student's degree (background) to the CSE curriculum.
4. Rigor of the student's bachelor's degree. A four-year degree is considered more rigorous than a three-year degree.
5. Reputation of the university/college that the student has received his/her previous degrees from.
6. GRE General Test: Admitted students typically earn the following scores on the GRE
  - a. GRE quantitative score of at least 700
  - b. GRE verbal score of at least 400
  - c. A sum of verbal and quantitative GRE scores (i.e. scores from parts 6a and 6b combined) of at least 1150 for MS and 1250 for Ph.D. applicants. An applicant can have a minimum score of 700 on the quantitative GRE or a minimum score of 400 on the verbal GRE, but not both. A passing score on the Fundamentals of Engineering (FE) exam is also given consideration.

Applicants for the MS degree with (or completing in the near future) a BSCSE from UT Arlington and a GPA of at least 3.2 should contact the graduate advisor regarding a GRE waiver. Those with a GPA of at least 3.5 should contact the graduate advisor regarding nomination for Advanced Admission (i.e. admission without application and fee). The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees in CS or CSE (with GPA of 3.2 or above) from reputable universities with an ABET accredited program or other select universities subject to graduate advisor's approval.

7. For Ph.D. students, the following are optional. Meeting these criteria will improve both a student's chances of securing admission and receiving financial support.
  - a. Publication in scholarly conferences/journals.
  - b. A percentile of 80 score or higher on the Computer Science subject GRE.

The above criteria are used as follows in relevance to the three possible admission decisions, i.e., *Unconditional Status*; *Probationary Status*; and *Denied*.

1. *Unconditional Status*: Applies to an applicant who meets the first six criteria above to a degree satisfactory to the graduate admissions committee.
2. *Probationary Status*: Applies to an applicant who meets at least five of the six criteria to a degree satisfactory to the graduate admissions committee and whose record shows promise for success in the program or to an applicant who does not fulfill all the deficiency course requirements.
3. *Denied*: Applies to an applicant who does not meet five of the first six criteria to a degree satisfactory to the graduate admissions committee.

### Requirements for BS to PhD accelerated program

1. An undergraduate degree in CS or CSE or Equivalent.
2. An overall GPA of 3.0 or higher in undergraduate coursework.
3. A 3.2 grade point average (on a 4.0 scale) on the last two years of undergraduate coursework. In particular, performance on CS/CSE related courses are emphasized.
4. Rigor of the student's Bachelors degree. A three-year degree is not considered rigorous enough.
5. Reputation of the University/College that the student has received his/her previous

degrees from.

- a. GRE quantitative score - 700
  - b. GRE verbal score - 400
  - c. The department does not require the advanced computer science test. A passing score on the Engineering-in-Training (EIT) exam is also given consideration for admission decisions.
6. A sum of verbal and quantitative scores of 1150 or more on the GRE\* :
7. (International Applicants)  
A Test of English as a Foreign Language (TOEFL) score - 230

### Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates may qualify for waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.
  - a. as calculated for admission to the Graduate School ;
  - b. overall;
  - c. in the major field; and
  - d. in all upper-division work.
2. The student's UT Arlington grade-point average must equal or exceed 3.0 in the following calculations:

Applicants qualifying for waiver of GRE who do not qualify for advanced admission, must comply with all other requirements for admission, i.e., submitting the application for admission, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waiver must be recommended by the Graduate Advisor at the time of admission. The waiver of GRE program applies to applicants for master's degree programs only. Some programs may require higher grade-point averages to qualify and some will not waive the GRE under any circumstances.

Additionally, some programs may waive the GRE requirement for non-UT Arlington graduates who seek admission as a master's student and meet qualifications listed in those programs' specific admission requirements. Such waivers are not offered by all graduate programs.

### Fellowships

The basis for granting a Fellowship to a student will be as follows:

- The student is admitted without provisional requirements.
- Relative standing with respect to other qualified applicants.

### Continuation

To fulfill its responsibility to graduate highly qualified professionals, the Department has established certain requirements that must be met by students continuing in the graduate programs. In addition to the requirements of the Graduate School listed elsewhere in the catalog, the Computer Science and Engineering Department has established additional requirements detailed in its Guide to Graduate Programs.

## **Degree Requirements**

### **Master of Science in Computer Science - Thesis**

The Master of Science in Computer Science degree program is designed to develop the scholarship and research skills of the student. Thirty-one credit hours, which include one orientation seminar credit and six thesis credits, are required.

### **Master of Science in Computer Science and Engineering - Thesis**

The Master of Science in Computer Science and Engineering, which is intended for students with a baccalaureate degree in engineering, requires 31 credit hours of which one is orientation seminar and six are thesis credits, and is designed to develop the scholarship and research skills of the student.

### **Master of Science in Computer Science - Non Thesis**

The Master of Science in Computer Science non-thesis options provide professional development in computer science. The structured option requires 37 credit hours of which one is orientation seminar.

### **Master of Science in Computer Science and Engineering**

The Master of Science in Computer Science and Engineering non-thesis options are intended for students with an engineering baccalaureate degree. The structured option requires 37 credit hours of which one is orientation seminar.

### **B.S. to Ph.D. Track**

The B.S. to Ph.D. track in Computer Science/Computer Science Engineering requires 30 credit hours with 21 hours of diagnostic requirements and nine hours of advanced research-oriented coursework. This is in addition to the Ph.D. requirements.

### **Ph.D. (Computer Science)**

The Ph.D. in Computer Science continues the development of the student's research capability. Coursework selection in each student's program is designed to support the dissertation area selected by the student.

A minimum of two semesters of full-time study is required during the dissertation phase. There is no foreign language requirement.

### **Ph.D. (Computer Science and Engineering)**

The Ph.D. in Computer Science and Engineering is available to students with a prior degree in engineering. It contains essentially the same requirements as the Ph.D. (Computer Science) degree except that it permits interdisciplinary research between Computer Science and one or more of the various engineering disciplines.

## **CS Courses**

### **CS6352 – PERF OF COMPUTE**

3 Lecture Hours · 0 Lab Hours

### **CS6359 – OBJ ORIENT DESI**

3 Lecture Hours · 0 Lab Hours

## **CS6378 – ADV OPER SYS**

**3** Lecture Hours · **0** Lab Hours

## **CSE Courses**

### **CSE5191 – INDIVIDUAL STUDY IN COMPUTER SCIENCE**

**1** Lecture Hour · **0** Lab Hours

Topics dealing with special problems in Computer Science on an individual instruction basis. May be repeated for credit.

### **CSE5194 – ORIENTATION SEMINAR**

**1** Lecture Hour · **0** Lab Hours

Presentation of computer science research by CSE faculty, students, and invited speakers. Preparation of program of work.

### **CSE5301 – DATA ANALYSIS & MODELING TECHNIQUES**

**3** Lecture Hours · **0** Lab Hours

Concepts and techniques for performing experiments and analyzing their results. Topics cover fundamental statistics, probability and data-representation concepts, interference through hypothesis testing, information theory, queuing models, and selected topics such as capacity planning and bottleneck analysis, clustering and classification, and hidden Markov models with computer science applications as examples.

### **CSE5306 – DISTRIBUTED SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Issues and challenges in distributed systems, including: communication, distributed processes, naming and name services, synchronization, consistency and replication, transactions, fault tolerance and recovery, security, distributed objects, and distributed file systems.

### **CSE5307 – PROGRAMMING LANGUAGE CONCEPTS**

**3** Lecture Hours · **0** Lab Hours

Study and evaluation of concepts in programming language for modern computer systems. Programming projects are selected from string-based, symbolic, algorithmic, and object-oriented languages.

### **CSE5311 – DESIGN AND ANALYSIS OF ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

Techniques for analyzing upper bounds for algorithms and lower bounds for problems. Problem areas include: sorting, data structures, graphs, dynamic programming, combinatorial algorithms, introduction to parallel models.

### **CSE5314 – COMPUTATIONAL COMPLEXITY**

**3** Lecture Hours · **0** Lab Hours

Sequential and parallel complexity classes (e.g., NP-complete and P-complete) and representative problems in languages, logic and graphs. Reduction techniques. Approximate solutions. Complexity hierarchies.

### **CSE5315 – NUMERICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Selected topics from the theory and practice of using automatic digital computers for approximating arithmetic operations, approximating functions, solving systems of linear and non-linear equations, and

solving ordinary and partial differential equations.

### **CSE5316 – MODELING, ANALYSIS, AND SIMULATION OF COMPUTER SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Mathematical formalism and techniques used for computer system modeling and analysis. Reviews probability, transform theory, coding theory, and Petri nets. Topics may include knowledge based modeling, validation procedures, various simulation techniques for stochastic process and real-time distributed systems.

### **CSE5317 – DESIGN AND CONSTRUCTION OF COMPILERS**

**3** Lecture Hours · **0** Lab Hours

Review of programming language structures, translation, and storage allocation. Introduction to context-free grammars and their description. Design and construction of compilers including lexical analysis, parsing and code generation techniques. Error analysis and simple code optimizations will be introduced.

### **CSE5318 – APPLIED GRAPH THEORY AND COMBINATORICS**

**3** Lecture Hours · **0** Lab Hours

Connected and disconnected graphs; trees; graph planarity; Hamiltonian circuits and Euler tours; coloring; flow and graph optimization algorithms, fundamentals of combinatorics; generating functions and recurrence relations; inclusion-exclusion principle; applications in telecommunications; mobile computing, parallel processing and multiprocessor architectures.

### **CSE5319 – SPECIAL TOPICS IN THEORY & ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5320 – SPECIAL TOPICS IN SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5321 – SOFTWARE TESTING**

**3** Lecture Hours · **0** Lab Hours

Study of software quality assurance, software testing process, methods, techniques and tools. Topics include formal review techniques, black box testing, white box testing, integration testing, acceptance testing, regression testing, performance testing, stress testing, and testing of object-oriented software. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5322 – SOFTWARE DESIGN PATTERNS**

**3** Lecture Hours · **0** Lab Hours

Study and application of object-oriented software design patterns to software development and maintenance in the object-oriented paradigm. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5323 – SOFTWARE ENGINEERING PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Introduces software lifecycle models, process disciplines, project management concepts, and applies them by mastering the Personal Software Process (PSP).

### **CSE5324 – SOFTWARE ENGINEERING: ANALYSIS, DESIGN, AND TESTING**

**3** Lecture Hours · **0** Lab Hours

Motivations, principles, and goals of software engineering; technical aspects of software projects, including:

review of structured analysis and structured design, emphasis on object-oriented methods of requirements analysis and specification, design, and implementation; software testing concepts; team project.

### **CSE5325 – SOFTWARE ENGINEERING: MANAGEMENT, MAINTENANCE, AND QUALITY ASSURANCE**

**3** Lecture Hours · **0** Lab Hours

Issues and principles for software management; managerial and support aspects of software projects, including: processes, estimation techniques, planning and scheduling, risk analysis, metrics, and quality assurance. Other topics include: configuration management, verification and validation, and maintenance; team project. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5326 – REAL-TIME SOFTWARE DESIGN**

**3** Lecture Hours · **0** Lab Hours

Specification, design, and analysis of real-time systems including real-time logics and decidability of real-time conditions; real-time scheduling approaches, system requirement specification; procedural and object-oriented methods; specialized analysis techniques for distributed and for control applications; team project. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5327 – TELECOMMUNICATIONS SOFTWARE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

General understanding and classification of telecommunications systems and applications. Issues relating to the analysis, design, implementation, and testing of telecommunications software. Prerequisite: CSE 5324 and 5344.

### **CSE5328 – SOFTWARE ENGINEERING TEAM PROJECT I**

**3** Lecture Hours · **0** Lab Hours

Apply the knowledge and skills gained in other software engineering courses to synthesize a solution to a significant and realistic software development team project. Participate in activities including: proposal writing, problem analysis, software requirements specification, project planning, software design, implementation, software quality assurance, software testing, integration, and demonstration. Required for and open only to Master of Software Engineering degree candidates. Prerequisite: one of 5321, 5322, 5325.

### **CSE5329 – SOFTWARE ENGINEERING TEAM PROJECT II**

**3** Lecture Hours · **0** Lab Hours

Apply the knowledge and skills gained in other software engineering courses to synthesize a solution to a significant and realistic software development team project. Participate in activities including: proposal writing, problem analysis, software requirements specification, project planning, software design, implementation, software quality assurance, software testing, integration, and demonstration. Required for and open only to Master of Software Engineering degree candidates. Prerequisite: one of 5321, 5322, 5325.

### **CSE5330 – DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Database system architecture; management and analysis of files, indexing, hashing, and B-trees; the relational model and algebra; the SQL database language; database programming techniques, database design using Entry-Relationship, extended E-R, and UML modeling; basics of normalization. Introduction to database security, query processing and transaction management. Prerequisite: CSE 2320.

### **CSE5331 – DBMS MODELS AND IMPLEMENTATION TECHNIQUES**

**3** Lecture Hours · **0** Lab Hours

DBMS system implementation techniques, including query optimization, transaction processing, concurrency control, buffer management and recovery. Object-oriented, object-relational and XML databases. Introduction to advanced database models, such as active, distributed, temporal, spatial and data warehousing. Prerequisite: CSE 3330/CSE 5330, or consent of instructor.



### **CSE5333 – DISTRIBUTED AND PARALLEL DATABASES**

**3** Lecture Hours · **0** Lab Hours

Distributed database system architecture and design, distributed transaction management and database interoperability; distributed query processing; parallel database architectures and techniques; and parallel algorithms for database operations. Prerequisite: CSE 5330 or consent of instructor.

### **CSE5334 – DATA MINING**

**3** Lecture Hours · **0** Lab Hours

Preparing data for mining, using preprocessing, data warehouses and OLAP; data mining primitives, languages and system architecture; data mining techniques including association rule mining, classification/prediction and cluster analysis.

### **CSE5335 – WEB DATA MANAGEMENT & XML**

**3** Lecture Hours · **0** Lab Hours

XML has become an important standardization for data representation and information exchange among Internet co-operative applications. This course provides an in depth study of the area of web data management with an emphasis on XML standards and technologies. The course primarily covers the state of the art in designing and building web applications and services, primarily focusing on issues and challenges that revolve around the management and processing of XML data. Topics include: Web programming, XML standards, XML query languages, native XML storage management, XML on relational databases, XML indexing, Web Services, metadata management with RDF, and Semantic Web. Prerequisite: CSE 3330/CSE 5330, or consent of instructor.

### **CSE5336 – STREAM DATA MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course provides a study of special-purpose data management systems for processing stream data generated by sensors, RFIDs (Radio Frequency Identifications), and other ubiquitous devices. Topics include: Analysis of the differences between processing and managing stored data and stream data (including events). Using sliding windows to unblock blocking operations for continuous queries. Approximation techniques for continuous aggregation queries. Quality of Service (QoS) requirements of stream and complex event processing applications and their impact on various aspects of processing. Modeling continuous queries, scheduling strategies for (multiple) continuous queries, adaptive query plans, and load shedding to trade-off QoS requirements. Design and implementation of stream processing systems. Prerequisite: CSE 3330 or CSE 5330, or consent of instructor.

### **CSE5339 – SPECIAL TOPICS IN DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5343 – REAL-TIME DATA ACQUISITION AND CONTROL SYSTEMS**

**2** Lecture Hours · **3** Lab Hours

Advanced course in design of microcomputer-based systems. Emphasis is on the application of state-of-the-art microprocessors, microcomputers, and other LSI and VLSI components to real-time, interactive, and/or embedded systems. Prerequisite: CSE 5442 or consent of instructor.

### **CSE5344 – COMPUTER NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Study of computer network architectures, protocols, and interfaces. The OSI reference model and the Internet architecture will be discussed. Networking techniques such as multiple access, packet/cell switching, and internetworking will be studied. Discussion will also include end-to-end protocols, congestion control, high-speed networking, and network management. Emphasis will be on Internet and ATM. Prerequisite: CSE 3320 or consent of instructor.



## **CSE5345 – FUNDAMENTALS OF WIRELESS NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of wireless networks, including wireless channels, coding and modulation, cellular architectures and protocols, multiple division techniques, multiple access control, wireless LAN/PAN, mobile IP and wireless internet, TCP over wireless, ad-hoc networks, sensor networks. Prerequisite: CSE 4344/5344 or equivalent course.

## **CSE5346 – NETWORKS II**

**3** Lecture Hours · **0** Lab Hours

This course provides an in depth study and comparison of the two primary networking paradigms, Internet/broadcast and switched, using two technologies, IPv6 and ATM, as representative examples. The course is implementation-oriented, focusing on issues such as routing, broadcast, multicast, mobility, network configuration, and quality of service. Prerequisite: CSE 5344.

## **CSE5347 – TELECOMMUNICATION NETWORKS DESIGN**

**3** Lecture Hours · **0** Lab Hours

A study of advanced telecommunication systems and networks, internet working functions, networking architectures and their convergence towards an IP/Ethernet centric architecture. Prerequisite: CSE 4344, CSE 5344, or CSE 5346.

## **CSE5348 – MULTIMEDIA SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Representations and techniques for processing, communicating, and compression of text, audio, graphics, and video in real time. Project integrating these topics. Prerequisite: CSE 3320.

## **CSE5349 – SPECIAL TOPICS IN NETWORKING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

## **CSE5350 – COMPUTER ARCHITECTURE II**

**3** Lecture Hours · **0** Lab Hours

A study of advanced uniprocessor and basic multiprocessor systems. Topics may include memory management systems, pipelined processors, array and vector processors, and introduction to architecture of multiprocessor systems. Prerequisite: CSE 3322 or consent of instructor.

## **CSE5351 – PARALLEL PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Covers the theory and practice of parallel processing. Theoretical topics include: abstract models and algorithms for shared memory computation (PRAM); algorithms for various topologies such as meshes and hypercubes; efficiency and speedup analysis. Problem areas include data structures, numerical methods, graphs, combinatorics. Practical topics include synchronization, routing, scheduling, parallelizing serial computations, programming languages. Includes programming exercises using one or more concurrent programming languages, on one or more parallel computers. Prerequisite: CSE 3320 or consent of instructor.

## **CSE5353 – DISTRIBUTED COMPUTING**

**3** Lecture Hours · **0** Lab Hours

Programming languages, support components, coordination models, and fundamental algorithms for distributed and clustered systems. Prerequisite: CSE 5306.

## **CSE5355 – COMPUTER SYSTEM PERFORMANCE EVALUATION**

**3** Lecture Hours · **0** Lab Hours

Queueing network models and simulation for studying the performance of overall computer systems. Theory and applications of Markov process, Random Walk, Renewal Process, and Birth and Death Process. Topics also include bottleneck identification, capacity planning, hardware selection and upgrade, and performance tuning. Data collection, presentation and interpretation, benchmarking and the proper choice of performance metrics will be emphasized. Prerequisite: CSE 3320.

### **CSE5359 – SPECIAL TOPICS IN SYSTEMS & ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5360 – ARTIFICIAL INTELLIGENCE I**

**3** Lecture Hours · **0** Lab Hours

Introduction to the methods, concepts and applications of artificial intelligence, including knowledge representation, search, theorem proving, planning, natural language processing, and study of AI programming languages. Prerequisite: CSE 2320 and 3315, or consent of instructor.

### **CSE5361 – ARTIFICIAL INTELLIGENCE II**

**3** Lecture Hours · **0** Lab Hours

Continuation of artificial intelligence methods and techniques, including uncertainty reasoning, machine learning, perception, and advanced topics in knowledge representation, search and planning. Emphasis on design and implementation of AI solutions. Prerequisite: CSE 5360 or consent of instructor.

### **CSE5362 – SOCIAL NETWORKS AND SEARCH ENGINES**

**3** Lecture Hours · **0** Lab Hours

Social networks, Search Engines, Recommendation systems, Question & Answering systems are web-enabled Information Technology main stream. This course covers the foundations of these technology including text/query processing, web content analysis, basic graph theory, random walk, PageRank, power law distribution, random graphs, small world, growth models, and network diffusion. Prerequisite: CSE 5311.

### **CSE5364 – ROBOTICS**

**2** Lecture Hours · **3** Lab Hours

An introduction to robotics and the design and programming of autonomous robot systems. Topics include basic kinematics, dynamics, and control, as well as sensors, knowledge representation, and programming techniques. Coursework includes individual and group projects involving the building and programming of simulated and real robots. Prerequisite: CSE 2320 and CSE 3442.

### **CSE5365 – COMPUTER GRAPHICS**

**3** Lecture Hours · **0** Lab Hours

Input/output devices and programming techniques suitable for the visual representation of data and images. Prerequisite: CSE 1320, analytic geometry and linear algebra, or consent of instructor.

### **CSE5366 – DIGITAL SIGNAL PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Introduction to principles and applications of digital signal processing. Topics include: analysis of signals and systems, Fourier and Z transforms, digital filter design techniques (FIR and IIR), autoregressive (AR) and autoregressive moving average (ARMA) modeling. Applications to science and engineering include: financial predictions and processing of digital music. Laboratory work includes some programming and use of high quality library routines and packages such as Mathematica, Matlab. Prerequisite: CSE 1320 and consent of Graduate Advisor.

### **CSE5367 – PATTERN RECOGNITION**

**3** Lecture Hours · **0** Lab Hours

Principles and various approaches of pattern recognition processes, including Bayesian classification, parametric/non-parametric classifier design, feature extraction for signal representation, and techniques for classification and clustering. Current issues in pattern recognition research will also be examine. Prerequisite: CSE 2320 , MATH 3313.

### **CSE5368 – NEURAL NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Theoretical principles of neurocomputing. Learning algorithms, information capacity, and mapping properties of feedforward and recurrent networks. Different neural network models will be implemented and their practical applications discussed. Prerequisite: CSE 1320 and calculus II, or consent of instructor.

### **CSE5369 – SPECIAL TOPICS IN INTELLIGENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5370 – BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

Basic biology of genome and common laboratory techniques Overview of discrete probability theory, random variables and processes. Issues in genome mapping, sequencing and analysis: sequence alignments and alignment algorithms; genomic databases and information access; structure and features of DNA sequences. Techniques in contemporary biotechnology, including proteomics and gene expression analysis using microarray chips. Prerequisite: CSE 5311 or consent of instructor.

### **CSE5379 – SPECIAL TOPICS IN BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5380 – INFORMATION SECURITY 1**

**3** Lecture Hours · **1** Lab Hour

Hands-on introduction to the basics of security. Includes system security, buffer overflows, a high-level overview of cryptography, firewalls and IDS/IPS, malware, penetration testing, forensics, and system administration. Prerequisite: CSE 3320 or consent of instructor.

### **CSE5381 – INFORMATION SECURITY 2**

**3** Lecture Hours · **1** Lab Hour

Deeper study of the fundamentals of security, including symmetric key cryptography, public key cryptography, cryptographic protocols, malware design, network attacks and defenses, data security, privacy, and wireless security. Prerequisite: CSE 5380 and CSE 4344 or consent of instructor.

### **CSE5382 – SECURE PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours

This course is an introduction to methods of secure software design and development for upper-level undergraduate students and graduate students. Students will learn about the major security problems found in software today. Using this knowledge, they will work in teams to find these bugs in software, fix the bugs, and design software so that it has fewer security problems. Static analysis tools will be a core part of the class, but students will also be exposed to black box testing tools. Topics will include input validation, buffer overflow prevention, error handling, web application issues, and XML. Prerequisites: CSE 3310 and CSE 3320, or equivalent.

### **CSE5388 – SPECIAL TOPICS IN INFORMATION SECURITY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5389 – SPECIAL TOPICS IN MULTIMEDIA, GRAPHICS, & IMAGE PROCESSING**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topics vary.

### **CSE5391 – INDIVIDUAL STUDY IN COMPUTER SCIENCE**

3 Lecture Hours · 0 Lab Hours

Topics dealing with special problems in Computer Science on an individual instruction basis. May be repeated for credit.

### **CSE5392 – TOPICS IN COMPUTER SCIENCE**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when the topics vary.

### **CSE5393 – DIRECTED STUDY IN COMPUTER SCIENCE**

3 Lecture Hours · 0 Lab Hours

### **CSE5394 – MASTER'S PROJECT I**

3 Lecture Hours · 0 Lab Hours

### **CSE5395 – MASTER'S PROJECT II**

3 Lecture Hours · 0 Lab Hours

### **CSE5398 – MASTER'S THESIS I**

3 Lecture Hours · 0 Lab Hours

Preliminary research effort for the master's thesis, including problem definition and literature search, along with identification of resources, milestones, examining committee members, and external publication venue. Graded F, R.

### **CSE5442 – EMBEDDED COMPUTER SYSTEMS**

3 Lecture Hours · 0 Lab Hours

Design of micro computer-based systems; microcomputer programming, component and system architectures, memory interfacing, parallel and serial I/O interfacing, A/D and D/A conversion, and typical applications. Prerequisite: CSE 3322 or consent of instructor.

### **CSE5698 – MASTER'S THESIS II**

6 Lecture Hours · 0 Lab Hours

Completion of tasks in support of the thesis defined in Master's Thesis I, including oral defense of the written documents. Prerequisite: CSE 5398. Graded F, R, P.

### **CSE6197 – RESEARCH IN COMPUTER SCIENCE**

1 Lecture Hour · 0 Lab Hours

Individually supervised research projects.

### **CSE6297 – RESEARCH IN COMPUTER SCIENCE**

2 Lecture Hours · 0 Lab Hours

Individually supervised research projects.

### **CSE6306 – ADVANCED TOPICS IN OPERATING SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5306 or consent of instructor.

### **CSE6311 – ADVANCED COMPUTATIONAL MODELS AND ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

This course aims at exploring advanced computation models, theory and advanced algorithm design and analysis techniques that have broad applicability in solving real-life problems in cross-disciplinary areas such as the Internet computing, Web search engines, data mining, bioinformatics, wireless mobile and sensor networks, dynamic resource management, distributed computing, and social networking. Topics include: Theory of NP-completeness; Equivalence of Machine Models; Lower Complexity Bounds; Randomized and Probabilistic Algorithms; Game-theoretic and Information-theoretic Models; Approximation and Optimization Techniques. Prerequisite: CSE 5311 or consent of instructor.

### **CSE6314 – ADVANCED TOPICS IN THEORETICAL COMPUTER SCIENCE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5314 or consent of instructor.

### **CSE6319 – SPECIAL TOPICS IN ADVANCED THEORY AND ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated when topics vary.

### **CSE6323 – AUTOMATED SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Study of foundations, techniques and tools for automating software processes and methodologies including analysis, design, implementation, testing, and maintenance of large software systems. Prerequisite: CSE 5324 or consent of instructor.

### **CSE6324 – ADVANCED TOPICS IN SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5324 or consent of instructor.

### **CSE6329 – SPECIAL TOPICS IN ADVANCED SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary. CSE 5324 or consent of instructor.

### **CSE6331 – ADVANCED TOPICS IN DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5332 and consent of instructor.

### **CSE6332 – TECHNIQUES FOR MULTIMEDIA DATABASES**

**3** Lecture Hours · **0** Lab Hours

Overview of data types, formats and compression techniques for audio, video and image data; operating systems techniques for multimedia; video delivery techniques; indexing and retrieval techniques; content-based video modeling; multimedia data on the Web. Prerequisite: CSE 5331 or consent of instructor.

### **CSE6339 – SPECIAL TOPICS IN ADVANCED DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6344 – ADVANCED TOPICS IN COMMUNICATION NETWORKS**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5346 or consent of instructor.

### **CSE6345 – PERVASIVE COMPUTING & COMMUNICATIONS**

3 Lecture Hours · 0 Lab Hours

Issues and challenges in pervasive computing environments: interoperability and heterogeneity; location-awareness and mobility; transparency and proactivity; trust, authentication and security, information acquisition and dissemination in mobile and pervasive systems. Contest-aware computing. Ad-hoc, sensor and mobile P2P systems in pervasive computing. Case studies. Prerequisite: Introductory courses in Networks, Algorithms and Operating Systems: e.g., CSE 5344, CSE 5311, and CSE 5306, or consent of instructor.

### **CSE6347 – ADVANCED WIRELESS NETWORKS & MOBILE COMPUTING**

3 Lecture Hours · 0 Lab Hours

Wireless architectures and protocols (e.g., GSM, CDMA); channel assignment and resource allocation; mobility and location management; mobile data management; wireless data networking and multimedia; call admission control and QoS provisioning; cross layer optimization, performance modeling. Prerequisite: CSE 5345 and CSE 5330.

### **CSE6348 – ADVANCES IN SENSOR NETWORKS**

3 Lecture Hours · 0 Lab Hours

Covers application and architecture of wireless sensor networks. Topics include platforms, routing, coverage, MAC, transport layer, data storage, query, and in-network processing. Prerequisite: CSE 5345 or equivalent course.

### **CSE6349 – SPECIAL TOPICS IN ADVANCED NETWORKING**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topics vary.

### **CSE6350 – ADVANCED TOPICS IN COMPUTER ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5350 and consent of instructor.

### **CSE6351 – TOPICS IN PARALLEL AND DISTRIBUTED COMPUTING**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5350, 5351, or consent of instructor.

### **CSE6352 – FAULT-TOLERANT COMPUTING**

3 Lecture Hours · 0 Lab Hours

Topics in reliable and fault-tolerant computing. May be repeated for credit when topics change. Prerequisite: CSE 5350 and consent of instructor.

### **CSE6359 – SPECIAL TOPICS IN ADVANCED SYSTEMS & ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topics vary.

### **CSE6362 – ADVANCED TOPICS IN ARTIFICIAL INTELLIGENCE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when the topic changes. Prerequisite: CSE 5361 and consent of instructor.

### **CSE6363 – MACHINE LEARNING**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of current machine learning methods, including statistical, connectionist, and symbolic learning. Presents theoretical results for comparing methods and determining what is learnable. Current issues in machine learning research will also be examined. Prerequisite: CSE 5361 and consent of instructor.

### **CSE6366 – DIGITAL IMAGE PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Digitization and coding of images, characterization and representation of digital images in spatial and frequency domains, picture restoration and enhancement, filtering of two-dimensional signals, image reconstruction. Prerequisite: CSE 5366 or consent of instructor.

### **CSE6367 – COMPUTER VISION**

**3** Lecture Hours · **0** Lab Hours

Advanced techniques for interpretation, analysis, and classification of digital images. Topics include methods for segmentation, feature extraction, recognition, stereo vision, 3-D modeling, and analysis of time-varying imagery. Also taught as EE 6358. Prerequisite: CSE 5301 or CSE 5360 or EE 5356 or EE 5357, and consent of instructor.

### **CSE6369 – SPECIAL TOPICS ADVANCED INTELLIGENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6379 – SPECIAL TOPICS IN ADVANCED BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6388 – SPECIAL TOPICS IN ADVANCED INFORMATION SECURITY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6389 – SPECIAL TOPICS IN ADVANCED MULTIMEDIA, GRAPHICS, & IMAGE PROCESSING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6392 – SPECIAL TOPICS IN ADVANCED COMPUTER SCIENCE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when the topics vary.

### **CSE6397 – RESEARCH IN COMPUTER SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Individually supervised research projects.

### **CSE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Preparation of dissertation in computer science or computer science and engineering. Graded F, R.

### **CSE6697 – RESEARCH IN COMPUTER SCIENCE**

**6** Lecture Hours · **0** Lab Hours

Individually supervised research projects.

### **CSE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Preparation of dissertation in computer science or computer science and engineering. Graded F, R,P,W.

### **CSE6997 – RESEARCH IN COMPUTER SCIENCE**

**9** Lecture Hours · **0** Lab Hours

Individually supervised research projects.

### **CSE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Preparation of dissertation in computer science or computer science and engineering. Graded P, F, R.

### **CSE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Electrical Engineering

College of Engineering

### Chair Jonathan Bredow

Web [www.uta.edu/ee/](http://www.uta.edu/ee/)

Email [eedept@uta.edu](mailto:eedept@uta.edu)

Phone 817.272.2672

Fax 817.272.2253

517 Nedderman Hall

---

### Degrees / Certificates

#### Master's Degrees

Electrical Engineering, M.Engr. Non Thesis

Electrical Engineering, M.S.

Electrical Engineering, M.S. Fast Track

#### Doctoral Degrees

Electrical Engineering, B.S. to Ph.D.

Electrical Engineering, Ph.D.

#### Certificates

EE Unmanned Vehicle Systems Certificate

---

### Graduate Faculty

[R Stephen Gibbs](#)

[Henry Kearny](#)

[Ramtin Madani](#)

[Yuze Sun](#)

[Yan Wan](#)

#### Professor

[Kambiz Alavi](#)

[Jonathan Bredow](#)

[Donald Butler](#)

[Ronald Carter](#)

[Zeynep Celik-Butler](#)

[Jung-Chih Chiao](#)

[Venkat Devarajan](#)

[George V Kondraske](#)

[Wei-Jen Lee](#)

[Frank L Lewis](#)

[Qilian Liang](#)

[Robert Magnusson](#)

[Michael T Manry](#)

[Kamisetty R Rao](#)

[Harry Stephanou](#)

#### Associate Professor

W Alan Davis  
William E Dillon  
Sungyong Jung  
Soontorn Oraintara  
Dan Popa  
Saibun Tjuatja  
Michael Vasilyev  
Weidong Zhou

#### Assistant Professor

Ali Davoudi  
Samir Iqbal  
Ioannis Schizas  
David A Wetz

#### Senior Lecturer

Rasool Kenarangui  
Howard Russell

---

### Graduate Advisors

#### W Alan Davis

*Electrical Engineering, M.Engr. Non Thesis*  
*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

#### William E Dillon

*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

---

### Department Information

#### Courses

## Department Information

#### Objective

#### Admission Criteria

#### Degree Requirements

- Master's Degree
- Doctoral Degree

#### Continuation

#### Ph.D. Supervisory Committee

#### Technical Areas, Courses, and Technical Proficiency Courses

### Objective

The course offerings provide the student with an opportunity to broaden as well as to intensify his or her knowledge in a number of areas of electrical engineering. The student, with the aid of a faculty adviser, may plan a program in any one of a number of fields of specialization within electrical engineering or from the offerings of related departments in science and engineering.

Graduate study and research are offered in the areas of:

1. Digital and Microprocessor/Controller Systems: Digital Signal Processors, Embedded Microcontrollers, Microprocessors, Advanced Microprocessor Systems
2. Solid-State Devices, Circuits and Systems: Semiconductor Theory, Microwave Devices and Circuits, Analog Electronics.
3. Systems and Controls: Systems, Controls, Manufacturing, Discrete Event Control, Neural and Fuzzy Control, Nonlinear Modern Control, Biomedical Signal Processing and Instrumentation
4. Electromagnetic Fields and Applications: Remote Sensing, Electromagnetic Fields, Propagation, Scattering, Radiation, and Microwave Systems.
5. Digital Signal and Image Processing: Vision Systems, Neural Networks, Statistical Signal Processing, Nonlinear Image Processing, Virtual Prototyping, and Virtual Environments.
6. Telecommunications and Information Systems: Information Transmission and Communication Systems
7. Power Systems: Efficient Operation, Generation, Transmission, Distribution, Deregulation
8. Optical Devices and Systems: Optics, Electro-optics, Diffractive Optics, Nonlinear Optics, and Lasers
9. Nanotechnology and MEMS - Materials and Devices: Quantum Electronic Devices, Semiconductor Surfaces and Interfaces, Single Electron Devices, Sensors and Detectors, Carbon Nanotube Devices, Noise and Reliability in Nano-Electronic Devices, Microactuators, RF MEMS, Polymer Electronics, and Nanophotonics
10. Renewable Energy Systems and Vehicular Technology: Power Electronics Engineering, Motor Drives, Renewable Energy Systems, Grid-Integration, and Vehicular Power Structure

The program is designed to satisfy the needs of students pursuing master's and doctoral degrees and to provide for the student seeking to increase knowledge in areas of electrical engineering related to engineering practice. The courses offered will provide practicing engineers with advanced, up-to-date education in electrical engineering.

## Admission Criteria

The admission process considers all of the application material including official transcripts, GRE scores, letters of recommendation, and the statement of purpose. No single objective factor is used to finalize the decision for admission or to deny admission. It is expected that an applicant have background in such areas as linear systems, dc and ac electronics circuits, static and dynamic electromagnetic fields, microprocessors, among the courses completed in a typical electrical engineering curriculum. Students with a BS in other fields are encouraged to apply, but they may be required to remedy a lack of required EE courses by taking some undergraduate EE courses. An attempt will be made to match the technical aspirations of the potential graduate students with the departmental resources in order to provide a stimulating academic environment for the students and their graduate education.

Criteria concerning (1) unconditional admission, (2) provisional admission, (3) deferred admission, (4) denial of admission, and (5) fellowship, are given below.

1. Admission with Unconditional Status: A typical applicant who is "admitted" will have met the following admission requirements.
  - The minimum undergraduate GPA requirement
    - a. For MSEE admission 3.25 (on a 4.0 scale) based on upper division coursework (junior and senior level or equivalent)
    - b. For Ph.D. admission 3.5 based on MSEE or equivalent
  - Relevance of the student's undergraduate degree (background) to the EE curriculum.
  - Rigor of the student's Bachelor's degree.

Reputation of the University/College that the student received his/her previous degrees

- For Ph.D. applicants, the publications in scholarly conferences/journals are optional but will improve both a student's chances of securing admission and receiving financial support.
  - Three recommendation letters from individuals who can judge the probability of success of the student's graduate study.
  - GRE scores of at least the following:
    - Quantitative score  
= 720 (new scale: 156) for M.S.  
or  
= 750 (new scale: 159) for Ph.D.
    - Verbal score = 400 (new scale: 146)
    - Analytical Writing = 3 for M.S. or =3.5 for Ph.D
  - For an International student, an additional requirement beyond those stated above:  
TOEFL = 560 for the paper and pencil test, 220 for the computer-based test and 83 for the internet based test. A minimum of 19 in each of the four categories.
2. Admission with Provisional status: An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.
  3. Deferred status: A deferred decision may be granted when a file is incomplete.
  4. Denied Status: An applicant that does not meet categories 1, 2 or 3 above will be denied admission.
  5. Fellowships: Award of a fellowship will be based on the criteria required by the sponsor agency (including the graduate school) on a competitive basis.

## Degree Requirements

### Master's Degree

Master's degree requirements are described in the general catalog section titled Requirements for the Master's Degree/Degree Plans and Hours Required. The MSEE degree options available are thesis option, thesis substitute option and non-thesis option. The courses taken for all degrees must be distributed over three of the nine areas given in the Objective section. The MSEE program of work in electrical engineering may include up to nine graduate level semester hours of supporting courses outside the Electrical Engineering Department in math, science and engineering. The Graduate Advisor must approve supporting courses that are permitted on a degree plan. The courses approved outside electrical engineering may be used in lieu of one of the three distribution areas. The thesis option requires 24 semester hours plus six semester hours of thesis (EE 5698). The thesis substitute option requires 33 semester hours of which three semester hours must be in the thesis substitute project (EE 5392). The non-thesis option requires 36 semester hours. EE 5391 may not be used to satisfy course requirements in either the Thesis or Thesis-substitute degree plans. EE 5391 may be used one time as part of the non-Thesis degree plan. EE 5191 may not be used toward the MSEE or MENGGR degrees. The M.Engr. emphasizes design engineering and management. This program requires 36 semester hours distributed in the same manner as the MSEE program, except that up to 12 semester hours outside the department may be included.

### Doctoral Degree

The Ph.D. is a degree with emphasis on research. Requirements for the doctoral degree are described elsewhere in the general catalog section on Degree Offerings/Requirements. Permission to continue beyond the master's degree will be based on the grade point average and GRE scores as described above. Approval to continue in the doctoral program is given by

satisfactory completion of the following procedure:

1. Obtaining the approval of a dissertation adviser, and
2. Passing the Diagnostic Examination. This exam will be over the three Technical Proficiency areas selected by the student.

Review courses for the Diagnostic Examination should be completed during the M.S. degree or during the first 30 graduate hours required for entrance into the Ph.D. program.

This procedure must be completed within the year of coursework toward the Ph.D. A student not having attempted the Diagnostic Examination by this time will be allowed one more opportunity to take the examination during the next full semester.

The program of work is expected to include a minimum of 15 semester hours of advanced graduate level coursework beyond the master's degree and sufficient dissertation semester hours as required to complete the dissertation. All graduate level courses are counted in the 15 hour minimum. Among the 15 hour minimum, a minimum of 6 semester hours of advanced graduate level coursework is required. In addition, 2 semesters of 1 semester hour seminar course (EE5190) are required. The seminar course is not counted in the 15 hour minimum. The supervising professor may require additional coursework beyond the 15 hour minimum if deemed necessary to accomplish the research required for the dissertation. These courses may include graduate level mathematics, science, or engineering relevant to the student's dissertation program, but only with approval of the Graduate Advisor.

For the direct PhD program, the program of work is expected to include a minimum of 30 semester hours of graduate level coursework beyond the bachelor's degree and sufficient dissertation semester hours as required to complete the dissertation. Among the 30 hour minimum, a minimum of 6 semester hours of advanced graduate level coursework is required. In addition, 2 semesters of 1 semester hour seminar course (EE5190) are required. The seminar course is not counted in the 30 hour minimum.

The status of a doctoral candidate is approved for students who have passed an oral Comprehensive Examination (a comprehensive dissertation proposal) and submitted a Final Program of Work. The Comprehensive Examination will be required by the time the student has completed the required coursework. If the student fails the examination, he/she would be given one more chance to pass it no later than during the following semester. Upon completion of the Comprehensive Examination, the candidate should enroll in the dissertation course (EE 6399, EE 6699, or EE 6999) continuously until defense of the dissertation. The last semester the student must be enrolled in EE 6999. This ordinarily requires approximately 30 semester hours of dissertation credit.

## **Continuation**

The Electrical Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified engineers, has established certain policies and procedures. In addition to the requirements of the Graduate School listed elsewhere, to continue in the program each electrical engineering graduate student must maintain at least a B (3.0) GPA in all electrical engineering coursework and at least a B (3.0) GPA in all coursework for M.S. students. A student working toward a Ph.D. must maintain a 3.5 GPA in all electrical engineering coursework and at least a 3.5 GPA in all coursework.

## **Ph.D. Supervisory Committee**

A doctoral student's committee shall consist of at least five members of the Graduate Faculty, a majority of whom must be in Electrical Engineering.

## **Technical Areas, Courses, and Technical Proficiency Courses**

MSEE students must take courses from three Technical Areas. Non-thesis students must take one technical proficiency course from each of three areas, and earn at least a 3.3 GPA in those three courses.

Technical Area	Courses	Technical Proficiency Courses
1. Digital and Microprocessor/Controller Systems	EE 5313 EE 5314 EE 5315 EE 6313 EE 6314	EE 5313 - Microprocessor Systems Approved Substitution: EE
2. Solid State Devices, Circuits and Systems	EE 5305 EE 5310 EE 5311 EE 5312 EE 5316 EE 5317 EE 5318 EE 5340 EE 5341 EE 5342 EE 5346 EE 5347 EE 5348 EE 6318 EE 6341	EE 5305 - Advanced Electronics EE 5310 - Digital VLSI Design EE 5340 - Semiconductor Device Theory EE 5341 - Fundamentals for Semiconductor Devices Approved Substitution: EE
3. Systems and Controls	EE 5307 EE 5320 EE 5321 EE 5322 EE 5323 EE 5324 EE 5325 EE 5326 EE 5327 EE 5328 EE 5329	EE 5307 - Linear Control Systems Theory EE 5320 - Control System Design EE 5328 - Instrumentation and Measurement Approved Substitution: EE
4. Electromagnetic Fields and Applications	EE 5306 EE 5331 EE 5332 EE 5333 EE 5334 EE 5335 EE 5337 EE 5338	EE 5306 - Electromagnetic Theory EE 5331 - Microwave Systems Engineering Approved Substitution: EE
5. Digital Signal and Image Processing	EE 5302 EE 5350 EE 5351 EE 5352 EE 5353 EE 5354 EE 5355 EE 5356 EE 5357 EE 5358	EE 5302 - Random Signals and Noise EE 5350 - Digital Signal Processing EE 5356 - Digital Image Processing Approved Substitution: EE

	EE 6356	
6. Telecommunications and Information Systems	EE 5360 EE 5361 EE 5362 EE 5363 EE 5364 EE 5365 EE 5366 EE 5367 EE 5368 EE 6362 EE 6363 EE 6364 EE 6365 EE 6367 EE 6368	EE 5360 - Data Communication Engineering EE 5362 - Digital Communications Approved Substitution: EE
7. Power Systems	EE 5308 EE 5371 EE 5372 EE 5373 EE 5374 EE 5375 EE 5376 EE 5377 EE 5378 EE 6372	EE 5308 - Power System Modeling and Analysis EE 5371 - Power System Transmission I Approved Substitution: EE
8. Optical Devices and Systems	EE 5380 EE 5382 EE 5383 EE 5384 EE 5385 EE 5386 EE 5387 EE 5388	EE 5380 - Principals of Photonics and Optical Engineering Approved Substitution: EE
9. Nanotechnology and MEMS - Materials and Devices	EE 5343 EE 5344 EE 5345 EE 5381 EE 6342 EE 6343 EE 6344 EE 6345	EE 5343 - Silicon IC Fab Technology EE 5344 - Introduction to MEMS EE 5381 - Foundations in Semiconductors Approved Substitution: EE
10. Renewable Energy Systems and Vehicular Technology	EE 5309 (Grid-Integration of Renewable Energy Systems) EE 5309 (Renewable Energy Systems) EE 5309 (Electric Motor Drive) EE 5309 (Hybrid Electric Drive) EE 6375	EE 6375 - Power Electronics Engineering

## EE Courses

### EE5190 – ELECTRICAL ENGINEERING GRADUATE SEMINAR

**1 Lecture Hour · 0 Lab Hours**

Topics vary from semester to semester. May be repeated for credit. Graded F, P. Prerequisite: graduate standing or consent of the department.

### **EE5191 – ADVANCED STUDY IN ELECTRICAL ENGINEERING**

**1 Lecture Hour · 0 Lab Hours**

Individual research projects in electrical engineering. Prior approval of the EE Graduate Advisor is required for enrollment. A written report is required. Graded F, I, P.

### **EE5301 – ADVANCED ENGINEERING ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Analytical and numerical techniques for solving various types of engineering problems. Topics include matrix reduction by Gaussian elimination, similarity transformation, singular value decomposition, Jordan normal form, etc. Analysis techniques include Fourier series and transforms, fast Fourier transform, discrete convolution, complex analysis, least squares, and others.

### **EE5302 – RANDOM SIGNALS AND NOISE**

**3 Lecture Hours · 0 Lab Hours**

Probability, random variables, and stochastic processes in physical systems. Topics include probability space, discrete and continuous random variables, density and conditional density functions, functions of random variables, mean-square estimation, random signals, system response, optimum system design, and Markov processes.

### **EE5303 – ENGINEERING MANAGEMENT**

**3 Lecture Hours · 0 Lab Hours**

The management of the engineering function in high-technology industry with principal emphasis on the historical development of industrial management principles, decision-making, and planning.

### **EE5304 – NETWORK SYNTHESIS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to network synthesis of circuits using lumped, linear, passive, and operational amplifiers. Topics include realizability theory, synthesis of driving point impedances and two port circuits, passive and active filters, and Hilbert Transforms.

### **EE5305 – ADVANCED ELECTRONICS**

**3 Lecture Hours · 0 Lab Hours**

Advanced study of solid-state devices and integrated circuits. Analysis, design and simulation of analog integrated circuits including biasing, gain stages, active loads, power amplifiers, operational amplifiers and wideband amplifiers.

### **EE5306 – ELECTROMAGNETIC THEORY**

**3 Lecture Hours · 0 Lab Hours**

Advanced study of electromagnetic theory, its content, methods, and applications. Topics include theorems in electromagnetic theory, cylindrical and spherical wave functions, waveguides, integral equation methods, scattering and diffraction.

### **EE5307 – LINEAR SYSTEMS ENGINEERING**

**3 Lecture Hours · 0 Lab Hours**

Topics include state-space description of dynamic systems, analysis and design of linear systems, similarity transformation, state feedback, state observers, and matrix characterization of multivariable systems.



## **EE5308 – POWER SYSTEM MODELING AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Fundamental concepts for modeling transmission lines, distribution lines, power system generators, power transformers and power system load. The method of symmetrical components is discussed. Simulation of power systems during normal and abnormal conditions are presented. The philosophy of deregulation regarding separation of power systems into generation, transmission and distribution companies is introduced.

## **EE5309 – TOPICS IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Material may vary from semester to semester. Topics are selected from current areas of electrical engineering interest. May be repeated when topic changes.

## **EE5310 – DIGITAL VLSI DESIGN**

**3** Lecture Hours · **0** Lab Hours

Introduction of VLSI digital circuit design methodology and processing technology. Application of various design software packages for circuit analysis and layout. Design of basic CMOS digital logic circuits. Implementation of digital logic design at the transistor level.

## **EE5311 – VLSI SIGNAL PROCESSING ARCHITECTURES**

**3** Lecture Hours · **0** Lab Hours

Design and synthesis of DSP and telecommunication systems using integrated modeling, design, and verification tools. Exploration of high-level architectural transformations that can be used to design families of DSP architectures for a given signal processing algorithm. Prerequisite: EE 5350.

## **EE5312 – CMOS RFIC DESIGN**

**3** Lecture Hours · **0** Lab Hours

Transceiver design for wireless communications using advanced CMOS technology. Emphasis on full-custom chip design, RFIC design concepts. Transceiver architectures. Topics include low noise amplifier, mixer, oscillator, frequency synthesizer, and power amplifier. A project is required, including design, simulation and layout using an IC design tool. Prerequisite: EE 5305 or EE 5318.

## **EE5313 – MICROPROCESSOR SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Hardware/software development techniques for microprocessors and their programmable peripherals, with emphasis on multi-byte width memory design, throughput issues including DMA controller design, co-processor operation, interrupt-driven i/o, oscillators and timer peripherals, analog signal interfacing, and digital buses and interfaces. Topics include: code efficiency issues, hardware-software interactions, and design of memory systems, DMA controllers, and real-world interfacing.

## **EE5314 – EMBEDDED MICROCONTROLLER SYSTEMS**

**3** Lecture Hours · **2** Lab Hours

Hardware/software development techniques for microcontroller systems with emphasis on hardware-software interactions, programming internal peripherals, and real-time control and conditioning of external devices. Other topics include: code efficiency, pin reuse, interrupt-driven processing, USART operations, 12C and SPI bus peripherals, and use of internal peripherals.

## **EE5315 – DSP MICROPROCESSORS**

**3** Lecture Hours · **0** Lab Hours

Device architectures and various aspects of hardware/software design will be presented for dominant families of function-specific, application-specific and general-purpose digital signal processors (DSPs) from leading manufacturers. Special attention will be given to problems related to real-time acquisition and processing of analog data (audio, video, RF, etc.), including design principles for the state-of-the-art data conversion interfaces.

### **EE5316 – CMOS MIXED SIGNAL IC DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of CMOS mixed signal ICs with emphasis on full custom chip design. Comparators, switched-capacitor circuits, converter architectures, analog-to-digital converters, digital-to-analog converters, integrator-based filters. A project is required, including design, simulation and layout using an IC design tool. Prerequisite: EE 5305 or EE 5318.

### **EE5317 – ADVANCED DIGITAL VLSI DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of logical gates using CMOS technologies; static and dynamic circuit techniques; advanced techniques in logic circuits; general VLSI system components design; arithmetic circuits in VLSI; low power design; chip layout strategies. A design project using computer tools is required. Prerequisite: EE 5310.

### **EE5318 – ANALOG CMOS IC DESIGN**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of complementary metalOxideAsemiconductor (CMOS) analog integrated circuits; metalOxideAsemiconductor (MOS) device structure and models; single-state and differential amplifiers; current mirror and operational amplifier (opamp) design; noise analysis and feedback; comparators and voltage references.

### **EE5319 – TOPICS IN DIGITAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in digital systems and microcomputers. May be repeated when topic changes.

### **EE5320 – CONTROL SYSTEM DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design, analysis, and computer simulation of digital and continuous control systems. Controller design using classical techniques and modern state-variable techniques, including linear quadratic regulator, polynomial, and observer design. Discrete systems and Z-transform theory. Use of high-level computer programs in system analysis and design will be emphasized. A prior introductory systems course, such as EE 5307, is desirable.

### **EE5321 – OPTIMAL CONTROL**

**3** Lecture Hours · **0** Lab Hours

Design of optimal control systems. Topics include optimization under constraints, linear quadratic regulators, Ricatti's equation, suboptimal control, dynamic programming, calculus of variations, and Pontryagin's minimum principle. A prior introductory systems course, such as EE 5307, is desirable.

### **EE5322 – INTELLIGENT CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Principles of intelligent control including adaptive, learning, and self-organizing systems. Neural networks and fuzzy logic systems for feedback control. Mobile robots. Discrete event systems and decision-making supervisory control systems. Manufacturing work-cell control. Advanced sensor processing including Kalman filtering and sensor fusion. A prior introductory systems course, such as EE 5307, is desirable.

### **EE5323 – NONLINEAR SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of nonlinear systems. A general course in nonlinear systems with examples from multiple engineering and science disciplines. Topics include phase planes, Lyapunov's theory, describing functions, iterative maps, chaos and fractals, and nonlinear optimization methods.

## **EE5324 – DESIGN OF DIGITAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Sampling and data reconstruction. Z-transforms and state variable descriptions of discrete-time systems. Linear quadratic optimal control and state estimation. Quantization and other nonlinearities. Real-time control systems. Digital feedback control systems. Constructing discrete-time mathematical model system. Analysis of system behavior using discrete-time model and evaluation of the system performance. Discrete controller design techniques such as root locus, frequency response, and state space techniques. Evaluation and testing of system performance using digital simulations. (Also listed as AE 5380 and ME 5380).

## **EE5325 – ROBOTICS**

**3** Lecture Hours · **0** Lab Hours

Principles of kinematics, dynamics, and control of robot manipulators and mobile robots. Analysis of dynamical equations and design of robot control systems using modern nonlinear systems techniques. Computer simulation of robotic and mobile robot systems. Path planning, workcell coordination and control. Also listed as ME 5337.

## **EE5326 – FUZZY LOGIC**

**3** Lecture Hours · **0** Lab Hours

Introduction to FLS (fuzzy logic system) systems theory, design, and applications. Topics include fuzzy logic and crisp logic, fuzzy rules and interference, fuzzification, defuzzification, non-singleton FLS, type 1 and type 2 FLS, TSK (The Sleuth Kit) FLS, applications to signal processing, telecommunications, control, and decision making.

## **EE5327 – SYSTEM IDENTIFICATION AND ESTIMATION**

**3** Lecture Hours · **0** Lab Hours

Introduction to parametric and non-parametric modeling and identification and estimation methods for linear and nonlinear systems. Methods covered include linear and non-linear least squares, LTI (linear time-invariant) black-box models, empirical transfer function estimate, state-space and frequency domain model reduction methods, Kalman filtering and self-tuning adaptive control. Introductory systems and signals courses, such as EE 5302 and EE 5307, are desirable.

## **EE5328 – INSTRUMENTATION AND MEASUREMENT**

**3** Lecture Hours · **0** Lab Hours

Measurement principles and design of sensor and measurement systems. Topics include computer-based measurement systems, sensor design, signal conditioning, data acquisition, smart sensors, and mechatronics. Techniques for measuring quantities encountered in robotics and automation, manufacturing, biomedical, and other applications. A previous course in analog or digital electronics is desirable.

## **EE5329 – TOPICS IN SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in systems engineering, such as advanced controls, systems performance, manufacturing, graphics subsystems design, stochastic control, decision and information theory, hierarchical or distributed parameter control. May be repeated when topic changes.

## **EE5331 – MICROWAVE SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Topics include frequency planning, design and performance analysis of transmitter and receiver circuits for communications and radar. Emphasis is on design using commercially available mixers, amplifiers, oscillators, and modulation circuits. Analysis includes receiver noise figure, distortion and path loss effects.

## **EE5332 – ANTENNA SYSTEM ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Fundamental study of antennas and antenna design techniques. Topics include numerical analysis of wire antennas; aperture antennas; geometrical theory of diffraction; horns and reflector antennas; and antenna synthesis and measurements. Prerequisite: EE 5306.

### **EE5333 – WAVE PROPAGATION AND SCATTERING**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of VHF, UHF, and microwave propagation in radar and communications. Propagation over irregular terrain. Propagation in built-up areas. Propagation modeling and prediction tools. Multipath phenomena. Signal statistics. Prerequisites: EE 5302 and EE 5306.

### **EE5334 – FUNDAMENTALS OF RADAR REMOTE SENSING**

**3** Lecture Hours · **0** Lab Hours

Active and passive remote sensing systems, platforms for remote sensing, radar equation, interaction of electromagnetic wave with matter, radar cross section, scattering from area extensive targets, surface scattering, volume scattering, radiative transfer theory, radar data collection and analysis, retrieval of target parameters.

### **EE5335 – FUNDAMENTALS OF RADAR IMAGING**

**3** Lecture Hours · **0** Lab Hours

Radar system, antenna system, radar equation, electromagnetic waves scattering from targets, radar signal and noise, detection and extraction of signal from noise or clutter, range and Doppler profiles, radar image formation, real aperture radar imaging, SAR imaging, ISAR imaging, image distortion, superresolution radar imaging techniques.

### **EE5337 – THEORY AND LABS OF MICROWAVE MEASUREMENTS**

**2** Lecture Hours · **1** Lab Hour

Circuit parameters and measurement techniques at microwave frequencies. The labs include standing wave pattern measurement using slotted lines and automated measurements using vector network analyzers.

### **EE5338 – COMPUTATIONAL METHODS IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

A few mathematical and computational methods to analyze physical phenomena in electrical engineering, including Fourier transformation, finite difference method, finite element method, and integral equation method.

### **EE5339 – TOPICS IN ELECTROMAGNETICS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in electromagnetics. May be repeated when topic changes.

### **EE5340 – SEMICONDUCTOR DEVICE THEORY**

**3** Lecture Hours · **0** Lab Hours

Quantum mechanics applicable to semiconductor theory. Energy band theory, density of states and effective mass theory. Intrinsic and extrinsic semiconductors, equilibrium statistics for electrons and holes. Transport, generation and recombination of excess carriers. Device equations and physics. Theory and performance of p-n and Schottky diodes, bipolar and MOS transistors.

### **EE5341 – ELECTRONIC MATERIALS: FUNDAMENTALS AND APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

Fundamental theory required for the study of electronic materials: waves and particles, quantum mechanics, crystal structures, chemical bonds, and band theory. Materials and properties considered will be metals, semiconductors, and dielectrics including effective mass, doping, and carrier statistics, and electronic, dielectric, magnetic, and optical properties of materials as applied to integrated circuits, wireless

communication, optoelectronics, optical communication, and data storage.

### **EE5342 – SEMICONDUCTOR DEVICE MODELING AND CHARACTERIZATION**

**2** Lecture Hours · **3** Lab Hours

Device models and characterization procedures for the pn junction and Schottky diodes, the BJT, JFET, MOSFET, HBT, and optical sources and detectors. SPICE derived and higher level circuit simulator models will be presented. Prerequisite: EE 5340 or EE 5341.

### **EE5343 – SILICON INTEGRATED CIRCUIT FABRICATION TECHNOLOGY**

**2** Lecture Hours · **3** Lab Hours

Basic integrated circuit fabrication processes: crystal growth (thin film and bulk), thermal oxidation, dopant diffusion/implantation, thin film deposition/etching, and lithography. Introduction to process simulators, such as SUPREM. Fabrication and characterization of resistors, MOS capacitors, junction diodes and MOSFET devices. Prerequisite: Pass the NanoFAB Safety and Clean Room Protocol test.

### **EE5344 – INTRODUCTION TO MICROELECTROMECHANICAL SYSTEMS (MEMS) AND DEVICES**

**3** Lecture Hours · **0** Lab Hours

Develops the basics for microelectromechanical devices and systems including microsensors, and micromotors, principles of operation, different micromachining techniques, and thin-film technologies as they apply to MEMS.

### **EE5345 – INTRODUCTION TO BIO-NANOTECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Introduction to the area of bio-nanotechnology. Basics of nanotechnology as applicable to biological and biomedical sensing, therapy and diagnostics. Theory, fabrication, techniques and uses of nano-scale devices and objects in biomedical and biology.

### **EE5346 – MICROWAVE DEVICES**

**3** Lecture Hours · **0** Lab Hours

Device physics and applications of microwave semiconductor devices and vacuum tubes. Topics include operation, modeling and characterization of MESFETs and HEMTs, microwave diodes, and microwave vacuum tubes. Prerequisite: EE 5340 and EE 5341.

### **EE5347 – MICROWAVE CIRCUITS**

**3** Lecture Hours · **0** Lab Hours

Theory of microwave circuit design; techniques include use of Kuroda identities, Richard's transformation, and ABCD parameters; topics include design of couplers, impedance transformers, filters, and resonators incorporating coupled transmission lines. Design of coaxial lines, strip lines, and microstrip is addressed. Prerequisite: EE 5348.

### **EE5348 – RADIO-FREQUENCY CIRCUIT DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of lumped- and distributed-element radio-frequency circuits operating at frequencies to 2 GHz, such as impedance-matching circuits, low noise and power amplifiers, and oscillators. S parameters will be used in determining gain, noise figure, and stability of an amplifier. Prerequisite: EE 5305.

### **EE5349 – TOPICS IN INTEGRATED CIRCUIT TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in integrated circuit technology. May be repeated when topic changes.

### **EE5350 – DIGITAL SIGNAL PROCESSING**

**3 Lecture Hours · 0 Lab Hours**

Time and frequency domain analyses of linear time invariant systems. Stability analyses of causal and non-causal systems using the Z-transform. FIR digital filter design. Design of frequency selective IIR digital filters using frequency transformations and the bilinear transform. Design of infinite and finite impulse response filters.

### **EE5351 – DIGITAL VIDEO CODING**

**3 Lecture Hours · 0 Lab Hours**

Fundamentals, principles, concepts and techniques of data compression such as Huffman, Lempel-Ziv, Arithmetic, Facsimile, Transform, DPCM, VQ, and Hybrid coding and applications in ITU, ISO, and IEC standards related to audio, video, and image compression.

### **EE5352 – STATISTICAL SIGNAL PROCESSING**

**3 Lecture Hours · 0 Lab Hours**

Estimation of autocorrelations, cross-correlations and power spectral densities. Least squares filter design via Toeplitz recursion and AR modeling. Adaptive noise cancellation. Algorithm development using maximum likelihood and minimum mean square error approaches. Lower bounds on estimation error variance. Prerequisites: EE 5350 and EE 5302 or consent of instructor.

### **EE5353 – NEURAL NETWORKS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to nonlinear networks for regression/approximation, classification, and clustering. Support vector machines. Training algorithms, methods for evaluating network performance. Applications in classification, estimation and forecasting. Prerequisite: EE 5350 or concurrent registration.

### **EE5354 – WAVELETS AND FILTER BANKS**

**3 Lecture Hours · 0 Lab Hours**

Fundamentals of signal decomposition, discrete multirate systems and polyphase structures. Time-frequency analysis and multiresolution signal representation. Two-channel filter banks, dyadic wavelets, and scaling and wavelet functions. M-channel filter banks and their lattice structures. Applications in signal de-noising, compression and communications. Prerequisite: EE 5350.

### **EE5355 – DISCRETE TRANSFORMS AND THEIR APPLICATIONS**

**3 Lecture Hours · 0 Lab Hours**

Principles and properties of discrete transforms such as discrete Fourier, discrete cosine, Walsh-Hadamard, slant, Haar, discrete sine, discrete Hartley, LOT and Wavelet transforms, and their applications in signal and image processing.

### **EE5356 – DIGITAL IMAGE PROCESSING**

**3 Lecture Hours · 0 Lab Hours**

Digital image processing as applied to image sampling and quantization, image perception, image enhancement, image restoration, image reconstruction from projections, and filtering and image coding. Prerequisite: EE 5350.

### **EE5357 – STATISTICAL PATTERN RECOGNITION**

**3 Lecture Hours · 0 Lab Hours**

Introduction to statistical pattern recognition. Deformation invariant and deformation variant feature extraction for class separability. Decision theory and statistical learning theory. Classifier design using Bayes, nearest neighbor, and regression-based approaches. Sensor fusion. Feature selection using transformation and subsetting. Prerequisites: EE 5350 and EE 5302 or consent of instructor.

### **EE5358 – COMPUTER VISION**

**3 Lecture Hours · 0 Lab Hours**

Techniques for the interpretation, analysis, and classification of digital images. Methods for segmentation, feature extraction, object recognition, stereo vision and 3-D modeling. A research project will be assigned.

### **EE5359 – TOPICS IN SIGNAL PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in signal processing. May be repeated when topic changes.

### **EE5360 – DATA COMMUNICATIONS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Principles underlying communication network design, including physical layer, MAC (media access control) layer modeling and engineering, and data link layer. Queuing theory. Internet structure, Internet protocol models and engineering. Physical layer description will include modulation, FEC (forward error correction), cyclic and Trellis coding. MAC layer modeling will include CSMA/CD (Carrier Sense Multiple Access / Collision Detection), ALOHAS, and other splitting algorithms.

### **EE5361 – FUNDAMENTALS OF TELECOMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Analysis of analog and digital communication techniques including amplitude modulation, frequency modulation, and pulse code modulation. Time-domain and frequency domain multiplexing. Analog and digital noise analysis, information theory, design of communication systems.

### **EE5362 – DIGITAL COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles underlying the transmission of digital data over noisy channels. Basics of source coding techniques including entropy coding, Lempel-Ziv. Channel capacity. Spectral analysis of digital modulation techniques. Optimum receiver design and error probability performance of commonly used modulation schemes. Applications to lightwave and wireless systems.

### **EE5363 – TELECOMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Basics of telecommunications and telephone networks. Switching and transmission systems. Circuit and packet switching. Call processing. Common channel signaling systems. Queuing theory and applications. OSI-layered (Open Systems Interconnection) reference architecture. ISDN (Integrated Services Digital Network).

### **EE5364 – INFORMATION THEORY AND CODING**

**3** Lecture Hours · **0** Lab Hours

Transmission of information over noisy channels, Shannon's coding theorems, techniques of coding and decoding for reliable transmission over noise channels, error-detecting, and error-correcting codes.

### **EE5365 – FIBER OPTIC TRANSMISSION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Propagation in optical fibers, characteristics and manufacture of fibers, semiconductor lightwave sources and detectors, optical transmitters and receivers, lightwave transmission systems for wide area and local area networks.

### **EE5366 – COMMUNICATION SATELLITE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Introduction of space communications, satellite orbits and their effect on communication system design. Atmospheric propagation effects. Communication link analysis, modulation, multiplexing, multiple access, encoding and forward error correction in satellite links. Design of communication satellites, earth station and their principal subsystems. Prerequisite: EE 5361.



### **EE5367 – WIRELESS SYSTEMS AND PROPAGATION MODELING**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles and techniques of electromagnetic wave propagation as it applies to current wireless and cellular systems, development of models of propagation and their application in wireless system design, characteristics of microwave devices used in wireless systems, system and traffic design techniques used in wireless systems.

### **EE5368 – WIRELESS COMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of radio system design and propagation. Basics of cellular systems, environment, propagation models, traffic models and spectral capacity. Multiple-access techniques including FDMA (frequency division multiple access), TDMA (time division multiple access), CDMA (code division multiple access). Analog and digital modulation techniques used in wireless communication and problems with RF (radio frequency) interference.

### **EE5369 – TOPICS IN COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in communications. May be repeated when topic changes.

### **EE5371 – POWER SYSTEM PLANNING, OPERATION, AND CONTROL IN A DEREGULATED ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Current market structure and practices are discussed. The issues of system planning, operation, and control in a deregulated environment are addressed. Prerequisite: EE 5308.

### **EE5372 – CONGESTION MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Phenomena of congestion and transmission pricing are presented. Thermal related congestion, such as power flow, and stability related congestion, such as voltage stability, transient stability, and dynamic stability, are covered. The effects of reactive power are discussed. Reliability and security issues of power transmission systems are presented. Congestion management and congestion relief measures are discussed. Prerequisite: EE 5308.

### **EE5373 – UNBUNDLING SERVICES OF A DEREGULATED POWER SYSTEM**

**3** Lecture Hours · **0** Lab Hours

The fundamental operating functions of a deregulated power system are presented. Unbundling of these functions and cost allocations are discussed. Topics of ancillary services, power marketing, price forecasting, and load forecasting are covered. Prerequisite: EE 5308.

### **EE5374 – POWER SYSTEM PROTECTIVE RELAYING**

**2** Lecture Hours · **3** Lab Hours

Fundamental understanding of symmetrical components, applications of symmetrical components in system protection, philosophy of power system protection, various protective relay systems, and the special considerations in applying the microprocessor based relays are covered. Experiments utilizing the Power System Simulation Laboratory are required.

### **EE5375 – POWER SYSTEM DISTRIBUTION**

**3** Lecture Hours · **0** Lab Hours

The basic functions of a Distribution Company are presented. Load representation, distribution load flow and the philosophy of simulation for a distribution system are discussed in detail.

### **EE5376 – POWER SYSTEM RELIABILITY IN PLANNING AND OPERATION**

**3** Lecture Hours · **0** Lab Hours



Loss of Load indices, Loss of Energy indices, Frequency and Duration methods, Interconnected Reliability methods, and Composite Generation and Transmission Reliability methods will be covered.

### **EE5377 – PROGRAMMABLE LOGIC CONTROLLERS IN INDUSTRIAL AUTOMATION**

**2** Lecture Hours · **3** Lab Hours

The application of Programmable Logic Controllers (PLC) in industrial automation and energy systems monitoring will be covered. Transducers, Supervisory Control and Data Acquisition (SCADA) systems, and Distributed Control Systems (DCS) will be discussed. Material covered is also applicable to various mechanical and civil engineering fields, thus enrollment of graduate engineering students from other disciplines is welcome. Experiments utilizing the Power System Simulation Laboratory are required.

### **EE5378 – POWER QUALITY**

**2** Lecture Hours · **3** Lab Hours

Principles of harmonics and filtering, source of voltage surges and surge protection, causes of voltage sags, flickers, and interruptions, and voltage supporting devices, and utility and end-user strategies for improving power quality are covered.

### **EE5379 – TOPICS IN POWER SYSTEM ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in power system engineering. May be repeated when topic changes.

### **EE5380 – PRINCIPLES OF PHOTONICS AND OPTICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Optical fields with applications to laser, optical fibers, and photonic signal processing. Encoding, manipulating, transmitting, storing, and retrieving information using light. Light propagation including isotropic and birefringent optical media, dielectric interfaces, interference and diffraction, Gaussian beams, optical cavities and principles of laser action, optical waveguides and fibers, electro- and acousto- optic modulation, and holography. Design, analysis and application of optical devices in communications and signal processing.

### **EE5381 – FOUNDATIONS IN SEMICONDUCTORS**

**3** Lecture Hours · **0** Lab Hours

Electronic properties of semiconductors affecting semiconductor devices: quantum behavior; Kronig-Penny model; energy bands; carrier statistics; density of states; one, two, and three dimensional systems; carrier transport; thermoelectric effects; surface and bulk generation-recombination statistics; continuity equations and their solutions; optical properties; semiconductor characterization techniques.

### **EE5382 – OPTICAL DETECTORS AND RADIATION**

**3** Lecture Hours · **0** Lab Hours

Basic principles of optical detectors used in imaging and communications. The course focuses on infrared detectors. Geometric optics, blackbody radiation, radiometry, photon detection mechanisms, thermal detection mechanisms, noise in optical detectors, figures of merit for detectors, photovoltaic detectors, photoconductive detectors, bolometers, pyroelectric detectors, and quantum well detectors.

### **EE5383 – SOLAR ELECTRICITY & PHOTOVOLTAICS**

**3** Lecture Hours · **0** Lab Hours

Solar radiation and other forms of renewable energy: wind, tide, biomass and hydropower. Fundamental theory of photovoltaics: crystal structures, band theory, semiconductors, doping, carrier statistics, optical absorption, and p-n junctions. Status of solar cell, including cost, optical design, system engineering, silicon solar cells and thin film solar cells. Prospects of solar cells, regarding low-cost and high-efficiency solar cells. Prerequisite: EE 5340 or EE 5341.

### **EE5384 – OPTOELECTRONIC DEVICES FOR COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Electronic and optical processes in semiconductors. Light emitting diodes. Laser diodes: structures, properties and operating principles. Photodetectors and solar cells. Noise and the photoreceiver. Optoelectronic modulators and switching devices. Systems needs and new device challenges.

### **EE5385 – NONLINEAR OPTICS**

**3** Lecture Hours · **0** Lab Hours

Nonlinear optical processes and applications in crystals, optical fibers and waveguides. Second- and third-order nonlinear susceptibility, symmetry properties, coupled-wave propagation, phase-matching techniques, sum- and difference-frequency generation, parametric amplification, four-wave mixing, self- and cross-phase modulation, soliton propagation, and Raman scattering.

### **EE5386 – INTEGRATED OPTICS**

**3** Lecture Hours · **0** Lab Hours

Theory and techniques of integrated optics including optical waveguiding, coupling, modulation, grating diffraction, detection and integrated systems.

### **EE5387 – FOURIER OPTICS AND HOLOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

Theory of Fourier optics and holography including scalar diffraction theory, Fresnel and Fraunhofer diffraction, Fourier transforming properties of lenses, optical imaging systems, spatial filtering, and the theory and applications of holography. Prerequisite: EE 5306.

### **EE5388 – LASERS**

**3** Lecture Hours · **0** Lab Hours

Propagation of optical rays and waves, Gaussian laser beams, laser resonators, atomic systems, lasing and population inversion, laser amplifiers, practical gas and solid-state lasers including continuous-wave and pulsed lasers, mode locking, Q-switching, frequency doubling, tunable lasers, semiconductor lasers, vertical-cavity lasers and applications of lasers.

### **EE5389 – TOPICS IN OPTICS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in optics. May be repeated when topic changes.

### **EE5391 – ADVANCED STUDY IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual research projects in electrical engineering. Prior approval of the EE Graduate Advisor is required for enrollment. A written report is required. Graded F,P,R.

### **EE5392 – PROJECT IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual research projects performed for fulfilling the requirements of the thesis substitute option. Prior approval of the EE graduate advisor is required for enrollment. A written and oral report is required. Graded F, P, R.

### **EE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: Graduate standing in electrical engineering.

### **EE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded F, P, R. Prerequisite: Graduate standing in electrical engineering.

### **EE6313 – ADVANCED MICROPROCESSOR SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Study of the advanced microprocessor architectures including 32/64-bit RISC and CISC families of microprocessors will be compared based on detailed architectural analysis of the selected devices. Topics include: address/instruction pipelines, burst cycles, memory caching and cache coherency issues, register renaming, speculative instruction execution and other performance-oriented techniques. Prerequisite: EE 5313.

### **EE6314 – ADVANCED EMBEDDED MICROCONTROLLER SYSTEMS**

**3** Lecture Hours · **2** Lab Hours

Study of advanced microcontroller system designs with an emphasis on multi-tasking, real-time control of devices. Topics include: design of real-time control systems, programmable logic controller (PLC) hardware, USB peripherals and network appliances. Prerequisite: EE 5314.

### **EE6318 – ADVANCED ANALOG VLSI SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Data converter design: Nyquist rate D/A and A/D converters and oversampling converters; continuous time filters; phase lock loops; low power analog circuit design techniques.

### **EE6323 – NONLINEAR AND ADAPTIVE CONTROL**

**3** Lecture Hours · **0** Lab Hours

Advanced design of nonlinear and adaptive systems. Topics include phase planes, Lyapunov's theory, describing function, feedback linearization, parameter estimation, self-tuning, and model reference adaptive systems. Also offered as AE 5337, ME 5374. Credit will be granted only once. Prerequisite: EE 5323.

### **EE6327 – KALMAN FILTERING**

**3** Lecture Hours · **0** Lab Hours

Kalman filter design and implementation. Optimal filtering for discrete-time and continuous-time dynamical systems with noise. Wiener filtering. State-space determination. Also offered as AE/ME 5336. Credit will be granted only once. Prior introductory systems or identification course, such as EE 5307 or EE 5327, is desirable. Credit will be granted only once.

### **EE6340 – INTRO TELE NETW**

**3** Lecture Hours · **0** Lab Hours

### **EE6341 – FEEDBACK AMPL**

**3** Lecture Hours · **0** Lab Hours

### **EE6342 – ADVANCED QUANTUM DEVICES**

**3** Lecture Hours · **0** Lab Hours

Advanced concepts in quantum theory of semiconductors. Epitaxial growth and characterization of heterostructures, quantum wells, and superlattices including strained layers; electronic and optical properties of these structures; electronic and optoelectronic devices based on quantum wells and superlattices. Prerequisite: Graduate standing.

### **EE6343 – QUANTUM WELL LASERS**

**3** Lecture Hours · **0** Lab Hours

Introduction to semiconductor heterostructures and quantum wells. Quantum theory of optical processes and laser operation. Threshold, spectral, and dynamical behavior. Modern laser structures and technologies, including strained-layer and surface emitting lasers. Prerequisite: EE 5340 and EE 5341.

### **EE6344 – NANOSYSTEMS AND QUANTUM ELECTRONIC DEVICES**

**3** Lecture Hours · **0** Lab Hours

Design, analysis, and techniques for conceptualizing and fabricating nanoscale systems. Role of quantum confinement and mesoscopic behavior, phase coherence, quantum transport, single electron devices, semiconductor heterostructures, self-assembly and molecular electronic schemes, lithographic methods, atomic epitaxy, and surface analysis techniques. Prerequisite: EE 5340 and EE 5341.

### **EE6345 – ADVANCED MEMS -- MICROELECTROMECHANICAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Microelectromechanical systems (MEMS) and devices including micro-actuators and optical MEMS. Application strategy of MEMS; fabrication and design; actuation mechanism and architectures; optical sensor and communication applications. Mask layout and hands-on design, fabrication procedures, design rules, demonstrated examples, and integration architectures. Prerequisite: EE 5344.

### **EE6352 – DIGITAL COM SYS**

**3** Lecture Hours · **0** Lab Hours

### **EE6356 – IMAGE AND VIDEO CODING**

**3** Lecture Hours · **0** Lab Hours

Fundamentals, principles, concepts, and techniques of data (image/video/audio) compression such as Huffman coding, arithmetic coding, Lempel-Ziv coding, facsimile coding, scalar and vector quantization, DPCM, PCM, sub-band coding, transform coding, hybrid coding and their applications. Prerequisite: EE 5350.

### **EE6360 – DIGI SIGNAL PRO**

**3** Lecture Hours · **0** Lab Hours

### **EE6362 – ADVANCED DIGITAL COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Digital communication systems design with intersymbol interference. Partial response signaling. Adaptive equalization. Viterbi decoding. Digital signaling on fading multi-path channels and wireless channels. Applications of error detecting and correction coding. Spread spectrum systems. Prerequisite: EE 5362.

### **EE6363 – SPREAD SPECTRUM COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Direct-sequence spread spectrum systems utilizing pseudonoise (PN) generators. PN sequences and their properties. Maximal length codes, Gold codes. Code acquisition techniques. Phase-locked loops and their applications in carrier tracking and code tracking. Performance of spread spectrum systems in jamming environments. Prerequisite: EE 5362.

### **EE6364 – ADVANCED DATA NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Network performance analysis, link and upper layer. Internet and ATM protocols, Internet routing and traffic management, ATM switch design and ATM traffic management. Prerequisite: EE 5360.

### **EE6365 – ADVANCED FIBER OPTICS SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Course reviews the modern WDM systems and methods of their design. Topics include architecture of state-of-the-art WDM systems; design of optical amplifiers; signal-to-noise-ratio budget; estimation of various system impairments; popular modulation formats; transmitter and receiver design issues; balancing optical nonlinearity and dispersion; optical networking; and characterization of WDM system's performance. Familiarity with fiber optics and telecommunications is desirable.

### **EE6367 – ADVANCED WIRELESS COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Performance analysis of cellular systems with multipath propagation, diversity, equalization, smart antennas. Interference compensation and signal separation in multiuser systems. Micro- and pico-cell design. Allocation of channels, hard and soft handoffs. Data transmission on mobile networks. Review of selected current and proposed systems. Prerequisite: EE 5368.

### **EE6368 – SIMULATION OF COMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Simulation methods of analysis of communications systems using C programming language and other languages. Analysis involving atmospheric point-to-point radio and cellular channels and fiber optic systems and their elements. Prerequisite: EE 5362, EE 5368, EE 5365, C, and UNIX. Prerequisite: EE 5362, EE 5368, EE 5365, C, and UNIX.

### **EE6371 – ELECTRIC AND HYBRID ELECTRIC VEHICLES**

**3** Lecture Hours · **0** Lab Hours

Dynamic modeling of vehicles, internal combustion engines, transmission, brake, electric motor drives, battery management and energy storage, vehicle to power grid interface, fuel economy, intelligent energy management system, fuel cell cars, vehicular communication.

### **EE6372 – HIGH VOLTAGE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Introduction to design, measurement and testing methods for high voltage systems. A study of electrical insulation materials and their properties, partial discharges and voltage breakdowns, electric field plotting methods, generation of high voltage test pulses, and high voltage measurement techniques.

### **EE6373 – RENEWABLE ENERGY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Wind energy harvest, solar energy sources and harvesting, hydropower resources, geothermal, fuel cell and hydrogen economy, power grid interface and distributed generation, microscopic energy harvest from vibration and thermal, role of power electronics in integration of renewable energy systems. Familiarity with the principles of power electronics and electric power recommended.

### **EE6374 – ADVANCED ELECTRIC MOTOR DRIVES**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of electromechanical energy converters, dc-brushed and permanent magnet dc motor drives, two axis theory of ac-electric machines, field oriented control of induction motor/generator drives, field oriented control of the brushless dc machines, switched reluctance motor drives, vector space pulse width modulated (PWM) power converters, electromagnetic interference / electromagnetic compatibility (EMI/EMC) issues and solutions in adjustable speed motor drives. Familiarity with the principles of power electronics and electric power recommended.

### **EE6375 – POWER ELECTRONICS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Switched mode DC-DC converters, controlled rectifiers, commutated and resonant inverters. Also, performance evaluation of specific applications by means of state space analysis will be discussed. Prerequisite: Must have consent of instructor.

### **EE6376 – SUSTAINABLE ENERGY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Laws of thermodynamic, electromechanical energy conversion, economic sustainability, environmental sustainability, Kyoto protocol, fossil fuels, renewable energy sources, nuclear energy.

### **EE6381 – NANOPHOTONICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to nanophotonic materials, devices, systems integration, and applications. Principles of nanoscale structures, quantum dots, photonic crystals, near field optics, plasmonics and metamaterials. Design, modeling, synthesis and fabrication of nano-structures and devices. Scaling of photonic components and optoelectronic integration.

### **EE6397 – RESEARCH IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of electrical engineering. Graded F, P, R.

### **EE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

### **EE6697 – RESEARCH IN ELECTRICAL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of electrical engineering. Graded F, P, R.

### **EE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P, W.

### **EE6997 – RESEARCH IN ELECTRICAL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of electrical engineering. Graded F, P, R.

### **EE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded F, P, R.

### **EE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not

complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Industrial and Manufacturing Systems Engineering

College of Engineering

**Chair Victoria Chen**

**Chair Paul Componation**

Web [www.uta.edu/ie/](http://www.uta.edu/ie/)

Phone 817.272.3092

**420 Woolf Hall**

---

### Degrees / Certificates

#### Master's Degrees

Engineering Management, M.S.

Industrial Engineering, M.Engr.

Industrial Engineering, M.S.

Logistics, M.S.

Systems Engineering, M.S.

#### Doctoral Degrees

Industrial Engineering, B.S. to Ph.D.

Industrial Engineering, Ph.D.

#### Certificates

IE Unmanned Vehicle Systems Certificate

---

### Graduate Faculty

**Paul Componation**

**Shouyi Wang**

#### Professor

**Victoria Chen**

**Herbert Corley**

**Donald Liles**

**John Priest**

#### Associate Professor

**Brian Huff**

**Sheik Imrhan**

**Erick Jones**

**Jamie Rogers**

**Jay Rosenberger**

#### Assistant Professor

**Susan Ferreira**

**Li Zeng**



**Senior Lecturer**  
**Bonnie Boardman**

---

## Graduate Advisors

**Sheik Imrhan**  
*Industrial Engineering, M.Engr.*  
*Industrial Engineering, M.S.*  
*Industrial Engineering, Ph.D.*

**Erick Jones**  
*Logistics, M.S.*

**Donald Liles**  
*Engineering Management, M.S.*  
*Systems Engineering, M.S.*

---

## Department Information

### Courses

# Department Information

## Programs in Industrial Engineering

### Admission Criteria

- **Unconditional Admission Criteria**
- **Probationary Admission Criteria**
- **Provisional Admission**
- **Deferral**
- **Denial**
- **Continuation**

### Degree Requirements

- **Master of Science**
- **Master of Engineering**

## Fast Track Program for a Master's Degree in Industrial Engineering

### BS to PhD Program

### Doctor of Philosophy

## Program in Systems Engineering

### Admission Criteria

- **Unconditional Admission**
- **Probationary Admission Criteria**
- **Provisional Admission**
- **Deferral**
- **Denial**

### Degree Requirements

## Program in Engineering Management

- **Admission**
- **Degree Requirements**

## Program in Logistics

- **Admission**

- **Degree Requirements**

## **Programs in Industrial Engineering**

The graduate program in industrial engineering is designed to provide the student with fundamental knowledge in the various areas of industrial engineering and with the opportunity to emphasize in a particular area. A student pursuing a master's or doctoral degree may specialize in any area of industrial engineering such as General Industrial Engineering, Operations Research and Applied Statistics, Manufacturing Systems, Logistics, Enterprise Systems, Enterprise Management, and Ergonomics.

The Department also participates in a college-wide Manufacturing Certificate program. In addition, the Master of Science in Logistics Program and the Master of Science in Engineering Management Program are offered in partnership with the College of Business Administration. The Logistics and Engineering Management programs are discussed elsewhere in this catalog.

The Master of Science in Systems Engineering Program is discussed later in this section.

### **Admission Criteria**

Applicants for the master's degree who hold a baccalaureate degree in engineering must meet the general requirements described below. Applicants not meeting all criteria may be admitted on a probationary basis.

For applicants with no prior training in engineering, the same minimum criteria will apply. In addition, their records will be reviewed in relation to the intended program of study, and specific remedial work may be required.

The acceptance of applicants who have already received a master's degree in engineering will be based on the above-mentioned minimum criteria and results of graduate work.

Performance on the GRE will not be the sole criterion for admitting applicants or the primary criterion to deny admission to either the master's or Ph.D. program. In cases where GRE performance is relatively poor all other qualifications presented by the applicant will be carefully evaluated for evidence of potential for success.

### **Unconditional Admission Criteria**

Unconditional Admission into the M.S. and Ph.D. programs in Industrial Engineering is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework.
- A GPA of at least 3.0 in all prior graduate work for Masters students or a GPA of at least 3.3 in all prior graduate work for Ph.D. students.
- A minimum score of 600 for Masters students or 700 for PhD students on the GRE Quantitative section and a minimum score of 400 for Masters students or 450 for Ph.D. students on the GRE Verbal section.
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language.
- Adequate preparation in mathematics, science, and industrial engineering

### **Probationary Admission Criteria**

Prospective students not meeting the conditions for unconditional admission may be granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must achieve a GPA of at least 3.0 for the first 9 hours completed at UTA. Unconditional admission may then be granted. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.

## Provisional Admission

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

## Deferral

The admission decision is deferred if sufficient information is not available.

## Denial

Prospective masters students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program. Prospective PhD students who are not unconditionally or provisionally admitted will be denied at the discretion of the graduate advisor.

## Continuation

The Industrial Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified professional engineers, has established certain policies and procedures. In addition to requirements of the Graduate School listed elsewhere, to continue in the program each industrial engineering graduate student must:

1. Maintain at least a B (3.0) overall GPA in all coursework taken as a graduate student and in all IE courses taken , and
2. Demonstrate suitability for professional engineering practice.

At such time as questions are raised by industrial engineering graduate faculty regarding either of the above, the student will be notified and will be provided the opportunity to respond to the Committee on Graduate Studies in Industrial Engineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "**Grievances Other than Grades.**"

## Degree Requirements

Students with degrees in other engineering disciplines may qualify for graduate study in industrial engineering after the completion of prescribed deficiency courses. Entering graduate students who are not proficient in engineering economy, probability and statistics, operations research, or industrial engineering design and analysis may be required to take deficiency courses to provide an appropriate background for graduate study in industrial engineering. For applicants with no prior education in engineering, the same deficiency courses will apply. In addition, courses in mathematics, physics, computer science, and basic engineering may be required.

Each IE graduate student will be required to take six courses as part of an industrial engineering core curriculum. The rest of the student's program will be elective, subject to the approval of the student's supervisory committee. The core curriculum is as follows:

1. Three hours of coursework in engineering statistics approved by the graduate advisor.
2. Three hours of coursework in operations research approved by the graduate advisor.
3. Three hours of coursework in engineering economy approved by the graduate advisor.
4. Nine hours of industrial engineering design approved by the Graduate Advisor.

A final examination is required for each master's candidate. In the option involving a thesis, this final examination will be oral and will cover the thesis. The non-thesis final examination will be written.

## Master of Science

The Master of Science Degree is a research-oriented program which consists of a thesis option, thesis-substitute option, and a non-thesis option. M.S. degree requirements are given under the catalog section entitled "Advanced Degrees and Requirements."

### **Master of Engineering**

The Master of Engineering Degree is an engineering practice-oriented program. The degree is a 36 credit-hour program in which a maximum of six credit hours may be earned by an acceptable design project report, internship, or additional coursework. Applicants for this degree must have a baccalaureate degree in an engineering discipline. M.E. degree requirements are given under the catalog section entitled "Advanced Degrees and Requirements."

### **Fast Track Program for a Master's Degree in Industrial Engineering**

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in Industrial Engineering to satisfy degree requirements leading to a master's degree in Industrial Engineering while completing their undergraduate studies. When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to 9 hours of coursework designated by the Industrial Engineering Program to satisfy both undergraduate and graduate degree requirements. In the limiting case, a student completing the maximum allowable hours (9) while in undergraduate status would have to take only 27 additional hours to meet minimum requirements for graduation.

Interested UT Arlington undergraduate Industrial Engineering students should apply to the Industrial Engineering Program when they are within 30 hours of completing their bachelor's degrees. They must have completed at least 30 hours at UTA, achieving an overall GPA of 3.0 or better in all work done at UTA and in the last 30 hours. Additionally, they must have completed 9 hours of specified foundation courses with a minimum GPA of 3.3 in those courses. Contact the Undergraduate Advisor or Graduate Advisor in Industrial Engineering for more information about the program.

### **BS to PhD Program**

The BS to PhD track in Industrial Engineering requires 30 credit hours including 18 hours of diagnostic coursework, a three credit hour elective and 9 credit hours of research coursework. This is in addition to the PhD requirements.

### **Doctor of Philosophy**

The Ph.D. degree should normally require approximately four years or less of full-time study after completion of the BS degree. A student's program will consist coursework, independent study, and a dissertation in fields pertinent to the student's areas of interest. The program for each student will be planned by the student and a committee of faculty members. There is no foreign language requirement for the Ph.D. degree.

Students with undergraduate degrees in fields other than engineering will be required to take the necessary courses to establish a background in science, mathematics, and engineering. Ph.D. requirements are listed in the catalog section entitled "Advanced Degrees and Requirements."

### **Program in Systems Engineering**

The Systems Engineering program is designed to provide students with both the fundamental and applied management and technical knowledge to support the development of complex systems. Systems Engineering is that branch of engineering that develops systems, where a system is a collection of elements that work together as a unit.

Systems Engineering considers the total systems life-cycle from customer requirements and concept through design and development, system use, system maintenance, and system disposal. A Systems Engineering curriculum must encourage a broad view rather than a focus on individual

system elements or phases of development. This broad view, a systems view, enables better system performance and reduces the likelihood of unintended consequences.

Students may obtain a Master of Science in Systems Engineering and then pursue a PhD in Industrial Engineering with a focus on Systems Engineering.

## Admission Criteria

### Unconditional Admission

Unconditional admission into the M.S. Systems Engineering program is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework or prior graduate work
- A minimum score of 600 on the GRE Quantitative section and 400 on the GRE Verbal section
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language.
- Adequate preparation in mathematics, science, and engineering, or other appropriate field.
- A minimum of two years of industry experience

### Probationary Admission Criteria

Prospective students who do not meet the conditions for unconditional admission are granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must achieve a GPA of at least 3.0 for the first 9 hours completed at UTA. Unconditional admission may then be granted. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.

### Provisional Admission

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

### Deferral

The admission decision is deferred if sufficient information is not available.

### Denial

Prospective students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program. Denial will not be based solely or primarily on GRE performance. In cases where test performance is relatively poor, all other qualifications presented by the applicant will be carefully evaluated for evidence of potential for success in the program.

## Degree Requirements

The M.S. degree in Systems Engineering requires 36 hours of coursework. The coursework is in the Department of Industrial and Manufacturing Systems Engineering. The program includes such courses as:

Introduction to Systems Engineering  
Systems Engineering I  
Systems Engineering II  
Systems Engineering III  
Advanced Operations Research

Advanced Engineering Statistics  
Simulation and Optimization  
Enterprise Engineering Methods  
Enterprise Architectures and Frameworks  
Engineering Management I  
Engineering Management II  
Project Management  
Advanced Engineering Economy  
Management of Knowledge and Technology

## **Program in Engineering Management**

The Engineering Management Program is offered as an interdisciplinary program that integrates engineering and business concepts. The curriculum prepares an experienced professional engineer or scientist for a leadership role in planning, developing and managing firm's technological resources including people, technology and processes. Graduates acquire an understanding how to use the technical base to accomplish the organization's operational, strategic and competitive objectives.

### **Admission**

Applicants must hold a baccalaureate degree in science, mathematics, engineering or other appropriate field.

#### **Unconditional Admission**

Unconditional admission into the Engineering Management Program is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework or and in all prior graduate work
- A minimum score of 600 on the GRE quantitative section and 400 on the GRE verbal section
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language
- Adequate preparation in mathematics, science, and engineering or other appropriate field. Industrial experience is preferred.

#### **Probationary Admission Criteria**

Prospective Engineering Management students not meeting the conditions for unconditional admission may be granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must maintain a GPA of at least 3.0 for the first 9 hours completed at UT Arlington. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.

#### **Provisional Admission**

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

#### **Deferral**

The admission decision is deferred if insufficient information is available.

#### **Denial**

Prospective students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program.

## Degree Requirements

The M.S. degree in Engineering Management requires 36 hours of coursework. The coursework is divided between the Department of Information Systems and Operations Management and the Department of Industrial and Manufacturing Systems Engineering. The program includes such courses as:

- Accounting Analysis
- Engineering Management
- Engineering Economics
- Management Sciences
- Quality Management
- Product Management
- Project Management
- Management of Knowledge and Technology
- Simulation and Optimization
- Technology Development and Deployment

## Program in Logistics

The Logistics Program is designed to meet an increasing state, national, and international demand for professionals with technical or business education and experience in the area of logistics and supply chain. Such professionals will need a unique combination of technical and business knowledge and skills and will have technical experience and degrees in engineering, mathematics or business.

Logistics is an interdisciplinary field of study which comprises the entire set of functions associated with the flow of goods, information, and payments among suppliers and consumers from organization of raw material to final recycling or disposal of finished goods. The integration of engineering and business content is done in a fashion that prepares an experienced professional engineer or manager for a leadership role in planning, developing, implementing and managing the firm's logistics and supply chain capabilities in the global marketplace. The overall purpose of the Logistics Program at UT Arlington is to provide graduates with the understanding needed to manage the firm's logistics and supply chain systems and infrastructure and to accomplish the organization's operational, strategic and competitive objectives.

## Admission

### Unconditional Admission

Unconditional admission into the M.S. Logistics program is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework or prior graduate work.
- A minimum score of 600 on the GRE quantitative section and 400 on the GRE verbal section or 500 on the GMAT.
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language.
- Adequate preparation in mathematics, science, and engineering or other appropriate field, and three years of experience.

### Probationary Admission Criteria

Prospective students not meeting the conditions for unconditional admission may be granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must maintain a GPA of at least 3.0 for the first 9 hours completed at UT Arlington. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.



### **Provisional Admission**

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferral**

The admission decision is deferred if insufficient information is available.

### **Denial**

Prospective students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program.

### **Degree Requirements**

The M.S. degree in Logistics requires 36 hours of coursework. The coursework is divided between the Department of Industrial and Manufacturing Systems Engineering and the Department of Information Systems and Operations Management. The program includes such courses as:

- Probability and Statistics
- Operations Research
- Production and Inventory Control
- Production Systems Design
- Enterprise Modeling
- Logistics Information Systems
- Logistics Transportation Systems Design
- Logistics Distribution Systems Design
- Business Logistics
- Purchasing and Materials Management
- Supply Chain Management Approved Electives

## **IE Courses**

### **IE5191 – ADVANCED STUDIES IN INDUSTRIAL ENGINEERING**

1 Lecture Hour · 0 Lab Hours

Individually approved research projects and reading courses in industrial engineering. Such individual studies will be graded A, B, C, D, F or X. Subject to the approval of the Graduate Advisor, IE 5191, 5291 and 5391 may be repeated as the topics change. In addition, work on a thesis substitute will be performed under IE 5391. In this case, IE 5391 is graded P/F/R.

### **IE5291 – ADVANCED STUDIES IN INDUSTRIAL ENGINEERING**

2 Lecture Hours · 0 Lab Hours

Individually approved research projects and reading courses in industrial engineering. Such individual studies will be graded A, B, C, D, F or X. Subject to the approval of the Graduate Advisor, IE 5191, 5291 and 5391 may be repeated as the topics change. In addition, work on a thesis substitute will be performed under IE 5391. In this case, IE 5391 is graded P/F/R.

### **IE5300 – TOPICS IN INDUSTRIAL ENGINEERING**

3 Lecture Hours · 0 Lab Hours

A study of selected topics in industrial engineering. May be repeated when topics vary. Prerequisite: consent of instructor and Graduate Advisor.



### **IE5301 – ADVANCED OPERATIONS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A survey of quantitative methods to develop modeling and decision-making skills. Topics include z-transforms and difference equations, Markov Chains, decision analysis techniques, goal programming, game theory, queuing theory and nonlinear programming. Prerequisites: Both IE 3301 and IE 3315 OR IE 5317 or equivalent.

### **IE5303 – QUALITY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Principles and practices of industrial quality control. Topics include the Deming philosophy, process improvements, statistical process control, process capability analysis and product acceptance. Prerequisite: IE 3301, or IE 5317, or equivalent.

### **IE5304 – ADVANCED ENGINEERING ECONOMY**

**3** Lecture Hours · **0** Lab Hours

Analysis of capital investments in engineering and technical projects. Topics include decision analysis methods, cash flows, revenue requirements, activity-based analysis, multi-attribute decisions, probabilistic analysis and sensitivity/risk analysis. Prerequisite: graduate standing.

### **IE5305 – LINEAR PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours

Theory and applications of linear programming including the simplex method, computational complexity, column generation and integer programming. Prerequisite: IE 3315 or IE 5317.

### **IE5306 – DYNAMIC OPTIMIZATION**

**3** Lecture Hours · **0** Lab Hours

Dynamic optimization methods including dynamic programming, the calculus of variations, and optimal control theory. Emphasis is on the modeling and solution of practical problems using these techniques. Prerequisites: IE 3301 and IE 3315, or IE 5317, or equivalent.

### **IE5307 – QUEUEING THEORY**

**3** Lecture Hours · **0** Lab Hours

The fundamentals of queueing theory including Markovian birth-death models, networks of queues, and general arrival and service distributions. Prerequisites: IE 3301 or IE 5317, or equivalent.

### **IE5309 – STOCHASTIC PROCESSES**

**3** Lecture Hours · **0** Lab Hours

The study of probabilistic model building including the fundamentals of both discrete and continuous Markov chains, queueing theory and renewal theory. Prerequisites: IE 3301 or IE 5317, or equivalent.

### **IE5310 – PRODUCTION SYSTEMS DESIGN**

**3** Lecture Hours · **0** Lab Hours

Methods for the design and analysis of manufacturing and logistics systems. Emphasis is placed on reducing cycle time, increasing throughput, lowering variation, and improving both quality and customer responsiveness through modeling techniques. Prerequisites: IE 5317 or equivalent, IE 5301 or concurrent and IE 5329 or concurrent or equivalent.

### **IE5311 – DECISION ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A survey of methods for making optimal decisions. Topics include decision models, formal logic, fuzzy

controls, statistical decision theory, game theory, multiobjective decisions, stochastic programming, information theory and qualitative aspects of the decisions. Prerequisites: IE 5301 or concurrent.

### **IE5312 – PLANNING AND CONTROL OF ENTERPRISE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

A continuation of IE 5329 covering enterprise resource planning systems (ERP) and other advanced production control techniques. Computer modeling is emphasized. Prerequisite: IE 5329

### **IE5313 – RELIABILITY AND ADVANCED QUALITY CONTROL TOPICS**

**3** Lecture Hours · **0** Lab Hours

Includes advanced quantitative topics in reliability design and quality control. Management of reliability and quality control functions are also included. Prerequisites: IE 4308 or IE 5303.

### **IE5314 – SAFETY ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Methods to identify, measure, analyze, and evaluate safety hazards in the workplace. Scientific and managerial methods to prevent or control safety hazards. Prerequisite: graduate standing.

### **IE5317 – INTRODUCTION TO STATISTICS AND OPERATIONS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Topics include descriptive statistics, set theory, combinatorics, mathematical expectation, probability distributions, confidence interval estimation, linear programming, the simplex and dual simplex algorithms, transportation and assignment problems, integer programming, and network analysis. Prerequisite: Math 2326 or equivalent and permission of advisor.

### **IE5318 – APPLIED REGRESSION ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An in-depth study of one predictor variable followed by the matrix approach to multiple linear regression. Topics include estimation, prediction, analysis of variance, residual analysis, transformations, multicollinearity, model selection, weighted least squares, ridge regression, and robust regression. Prerequisite: IE 3301 or IE 5317 or equivalent.

### **IE5319 – ADVANCED STATISTICAL PROCESS CONTROL AND TIME SERIES ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Design of control schemes for statistical monitoring and control of modern manufacturing systems. Topics include charts for process control, effect of autocorrelation on SPC charts, and sampling plans for acceptance inspection. Prerequisite: IE 3301 and IE 5303 or equivalent.

### **IE5320 – ENTERPRISE ENGINEERING METHODS**

**3** Lecture Hours · **0** Lab Hours

A survey of enterprise engineering methods. Topics include system development methodology, discussion of enterprise architectures, activity modeling, business modeling, activity-based performance analysis, and process improvement. Prerequisite: Graduate standing.

### **IE5321 – ENTERPRISE ANALYSIS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

An in-depth study of techniques useful for the analysis and design of the manufacturing enterprise. This course presents an advanced process description technique that is used, with simulation and activity based costing, to facilitate analysis and design. Prerequisites: IE 5320 and IE 5322, or concurrent enrollment.

### **IE5322 – SIMULATION AND OPTIMIZATION**

**3 Lecture Hours · 0 Lab Hours**

An in-depth study of discrete event simulation theory and practice. Optimization and search techniques used in conjunction with simulation experiments are introduced. A commercial simulation software application is used. Prerequisite: IE 5317 or equivalent.

### **IE5326 – INDUSTRIAL BIOMECHANICS**

**3 Lecture Hours · 0 Lab Hours**

The development and application of biomechanical models of physical work tasks, especially manual materials handling and hard-arm work activities. Prerequisite: Graduate Standing.

### **IE5329 – PRODUCTION AND INVENTORY CONTROL SYSTEMS**

**3 Lecture Hours · 0 Lab Hours**

The fundamentals of production and inventory control systems. The economic impacts of fluctuating demand, supply availability and production rates are examined. Prerequisite: graduate standing.

### **IE5330 – AUTOMATION AND ADVANCED MANUFACTURING**

**2 Lecture Hours · 3 Lab Hours**

The design of automated and advanced production processes for manufacturing. Topics include numerical control, robotics, group technology, just-in-time, automated inspection and flexible manufacturing systems. Prerequisite: graduate standing.

### **IE5331 – INDUSTRIAL ERGONOMICS**

**3 Lecture Hours · 0 Lab Hours**

The analysis and design of physical work, workplace, and hand tools using ergonomic principles for enhancing performance, health, and safety. Work refers mainly to whole body and hand-arm activities, while workplace refers to industrial and computerized office environments. Applications focus on people's anthropometric, musculoskeletal and psychological characteristics. Prerequisite: Graduate standing.

### **IE5332 – NONLINEAR PROGRAMMING**

**3 Lecture Hours · 0 Lab Hours**

Methods for nonlinear optimization including classical theory; gradient methods; sequential unconstrained methods; convex programming; genetic algorithms; simulated annealing; and separable, quadratic, and geometric programming. Prerequisite: graduate standing.

### **IE5333 – LOGISTICS TRANSPORTATION SYSTEMS DESIGN**

**3 Lecture Hours · 0 Lab Hours**

The design and analysis of domestic and international transportation systems of people, processes, and technology. Topics include the role of transportation in the extended enterprise, transportation modeling and optimization techniques, value-added supply chain issues, and financial performance measures. Prerequisites: IE 5317 or equivalent, IE 5301 or concurrent, and IE 5329 or concurrent, or equivalent.

### **IE5334 – LOGISTICS DISTRIBUTION SYSTEMS DESIGN**

**3 Lecture Hours · 0 Lab Hours**

The design and analysis of distribution systems of people, processes and technology. The focus is on distribution, warehousing and material handling. Topics include the role of the warehouse in the extended enterprise, warehouse planning, process design, layout, equipment selection, workforce and workplace issues, and financial performance measures. Prerequisites: IE 5317 or equivalent, IE 5301 or concurrent, and IE 5329 or concurrent, or equivalent.

### **IE5335 – ADVANCED OCCUPATIONAL ENVIRONMENTAL HYGIENE ENGINEERING**

**3 Lecture Hours · 0 Lab Hours**

Interaction of workers with physical environmental agents such as heat, cold, noise, vibration, illumination, radiation, and gravity. The design of work and the workplace to control environmental stresses, and their effects on workers' performance, health and safety. Prerequisite: graduate standing.

### **IE5338 – HUMAN ENGINEERING**

**2** Lecture Hours · **3** Lab Hours

Human structural, physiological, psychological, and cognitive capacities and limitations in the workplace, and their effects on the design of work systems to enhance productivity, and maintain health and safety. Prerequisite: IE 3301 or equivalent, or consent of instructor.

### **IE5339 – PRODUCT DESIGN, DEVELOPMENT, PRODUCIBILITY, AND RELIABILITY DESIGN**

**3** Lecture Hours · **0** Lab Hours

This course covers product development and engineering design process with a focus on collaborative design. Software, manufacturing, reliability, testing, logistical and product support considerations are emphasized. Prerequisite: graduate standing.

### **IE5342 – METRICS AND MEASUREMENT**

**3** Lecture Hours · **0** Lab Hours

Work measurement, methods improvements, and performance measurement. A survey of enterprise and management measurement systems is presented. Prerequisite: IE 5317 or equivalent.

### **IE5345 – MANAGEMENT OF KNOWLEDGE AND TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Review of contemporary issues in knowledge management, databases, decision support systems, and intelligent systems. Topics include knowledge acquisition, intelligent database design, decision support systems, data mining, knowledge transfer, and collaborative development. Prerequisite: graduate standing.

### **IE5346 – TECHNOLOGY DEVELOPMENT AND DEPLOYMENT**

**3** Lecture Hours · **0** Lab Hours

Review of management issues in developing and implementing new technologies and methodologies into an organization. Topics include technology forecasting, management of technology based projects, technological competitiveness, technology alliances, and collaboration. Prerequisite: graduate standing.

### **IE5350 – GRADUATE DESIGN CAPSTONE**

**3** Lecture Hours · **0** Lab Hours

Practicum in Industrial Engineering techniques consisting of professional level experience in a relevant company, agency, or institution. This technical experience is directed by a supervising professor and requires the writing of a professional report. Prerequisite: 24 hours of graduate work in Industrial Engineering.

### **IE5351 – INTRODUCTION TO SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course includes a survey of concepts, principles and processes required to engineer complex systems throughout the life-cycle from concept through disposal. Prerequisite: graduate standing and permission of advisor.

### **IE5352 – SYSTEMS ENGINEERING I**

**3** Lecture Hours · **0** Lab Hours

A study of systems engineering topics including technical planning and management, supply processes, requirements definition and analysis, functional analysis, and trade-off analysis. Prerequisite IE 5351.

## **IE5353 – SYSTEMS ENGINEERING II**

**3** Lecture Hours · **0** Lab Hours

A continuation of IE 5352. Topics include risk management, systems design and implementation, acquisition processes, assessment and control, earned value management, technical process management, and enabling products. Prerequisite: IE 5352.

## **IE5354 – SYSTEMS ENGINEERING III**

**3** Lecture Hours · **0** Lab Hours

A continuation of IE 5353. Topics include system verification, validation and transition to use, specialty engineering, improving SE processes, SE and relationships to international programs, object oriented systems engineering and configuration management. A comprehensive student project is required. Prerequisite IE 5353.

## **IE5391 – ADVANCED STUDIES IN INDUSTRIAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects and reading courses in industrial engineering. Such individual studies will be graded A, B, C, D, F or X. Subject to the approval of the Graduate Advisor, IE 5191, 5291 and 5391 may be repeated as the topics change. In addition, work on a thesis substitute will be performed under IE 5391. In this case, IE 5391 is graded P/F/R.

## **IE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

## **IE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P, F, R.

## **IE6197 – RESEARCH IN INDUSTRIAL ENGINEERING**

**1** Lecture Hour · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

## **IE6297 – RESEARCH IN INDUSTRIAL ENGINEERING**

**2** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

## **IE6301 – ENTERPRISE ARCHITECTURES AND FRAMEWORKS**

**3** Lecture Hours · **0** Lab Hours

A survey of enterprise architectures and analysis frameworks that have been proposed for the integration of large complex enterprise systems. Emphasis is placed on state-of-the-art approaches. Prerequisite: IE 5320.

## **IE6302 – FACILITIES PLANNING AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

Facilities planning through layout design. Product flow, space-activity relationships, personnel requirements, and material handling are considered, as well as receiving, shipping, warehousing, and integration with manufacturing. Facilities planning models are explored. Prerequisite: IE 5317 or equivalent, IE 5301 or concurrent, and IE 5329, or concurrent or equivalent.

## **IE6303 – COMBINATORIAL OPTIMIZATION**

**3** Lecture Hours · **0** Lab Hours

A survey of problems and algorithms in combinatorial optimization. Topics include shortest paths, minimum-weight spanning trees, matroids, matchings, optimal assignments and set packing. Prerequisite: IE 5305 or consent of instructor.

### **IE6305 – ENGINEERING MANAGEMENT I**

**3** Lecture Hours · **0** Lab Hours

The management of the engineering function in high-technology industry with principal emphasis on the historical development of industrial management principles, decision-making and planning. Prerequisite: Graduate standing.

### **IE6306 – ENGINEERING MANAGEMENT II**

**3** Lecture Hours · **0** Lab Hours

The management of the engineering function in high-technology industry with principal emphasis on human resources and staffing, directing and leading, and controlling. Prerequisite: IE 6305.

### **IE6308 – DESIGN OF EXPERIMENTS**

**3** Lecture Hours · **0** Lab Hours

Introduction to statistical design and analysis of experiments with applications from engineering, health care and business. Analysis includes analysis of variance, multiple comparisons and model adequacy. Designs include complete factorial, complete block, incomplete block, Latin square, Youden, two-level fractional factorial and hierarchically nested. Prerequisite: IE 5318 or consent of instructor.

### **IE6309 – RESPONSE SURFACE METHODOLOGY AND COMPUTER EXPERIMENTS**

**3** Lecture Hours · **0** Lab Hours

Empirical model building and process optimization using experimental design and statistical modeling. The first half of the course covers first and second order models and designs, multiresponse experiments and mixture experiments. The second half introduces designs based on Latin hypercubes, orthogonal arrays, and number-based theoretic methods, plus models using kriging, multivariate adaptive regression splines and neural networks. Prerequisite: IE 6308.

### **IE6310 – INDUSTRIAL APPLICATIONS**

**2** Lecture Hours · **3** Lab Hours

Project oriented course focusing on the requirements and selection criteria for the integration of technology into simple and complex industrial activities. Prerequisite: IE 5330

### **IE6397 – RESEARCH IN INDUSTRIAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

### **IE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

### **IE6697 – RESEARCH IN INDUSTRIAL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

### **IE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P, W.

### **IE6997 – RESEARCH IN INDUSTRIAL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

### **IE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded P, F, R.

### **IE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
    - Bioengineering
    - Civil Engineering
    - Computer Science and Engineering
    - Electrical Engineering
    - Industrial and Manufacturing Systems Engineering
    - Materials Science and Engineering
    - Mechanical & Aerospace Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Materials Science and Engineering

College of Engineering

### Chair Efstathios Meletis

Web [www.uta.edu/mse/](http://www.uta.edu/mse/)

Email [mse@uta.edu](mailto:mse@uta.edu)

Phone 817.272.2398

Fax 817.272.2538

**231 Engineering Lab Building**

---

### Degrees / Certificates

#### Master's Degrees

Materials Science and Engineering, M.Engr.

Materials Science and Engineering, M.S.

#### Doctoral Degrees

Materials Science and Engineering, B.S. to Ph.D.

Materials Science and Engineering, Ph.D.

---

### Graduate Faculty

**Duane Dimos**  
**Kyungsuk Yum**

#### Professor

**Pranesh Aswath**  
**Ronald Elsenbaumer**  
**Choong-Un Kim**  
**Efstathios Meletis**

#### Associate Professor

**Yaowu Hao**  
**Seong Jin Koh**

#### Assistant Professor

**Fuqiang Liu**

#### Research Professor

**Nai Yuen Chen**  
**Wiley P Kirk**  
**Harry Fred Tibbals**

---

### Graduate Advisors

#### Natalie Burden

*Materials Science and Engineering, B.S. to Ph.D.*



*Materials Science and Engineering, Ph.D.*

**Seong Jin Koh**

*Materials Science and Engineering, M. Engr.*

*Materials Science and Engineering, M.S.*

*Materials Science and Engineering, Ph.D.*

---

**Department Information**

**Courses**

## Department Information

### Objective

#### Admission

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred**
- **Denial of Admission**
- **Waiver of Graduate Record Exam**
- **Eligibility for Scholarships/Fellowships**

#### Continuation

#### Degree Requirements

- **Master's Degrees**
- **B.S. to Ph.D. Track**
- **Doctor of Philosophy**

### Objective

The graduate program in materials science and engineering is designed to provide students with a fundamental understanding of phenomena occurring in materials and their associated chemical, electrical, mechanical, and physical properties. The master's program prepares students for professional careers in materials science and engineering or for additional studies at the doctoral level.

Candidates for a master's or doctoral degree may elect programs emphasizing metals, polymers, ceramics, composite materials, or electronic materials, as well as a number of other areas. Although the program is administered through the College of Engineering, it is broadly interdisciplinary, actively involving faculty in both the College of Science and the College of Engineering. In addition to materials science and engineering courses, applicable courses are in the disciplines of aerospace engineering, biomedical engineering, chemistry, civil engineering, computer science engineering, electrical engineering, mechanical engineering, and physics.

### Admission

Applicants for the master's or doctoral degrees must have either a baccalaureate or master's degree in engineering or science. Applicants who have completed a bachelor's degree and wish to

pursue a doctoral degree without completing a master's degree may apply for admission into the B.S. to Ph.D. Track. The minimum admission requirements to this highly competitive track are the same as those for all doctoral applicants. Doctoral candidates shall also demonstrate through previous academic preparation the potential to carry out independent research in materials science and engineering. All applicants must meet the general requirements of the Graduate School as stated in the section of this catalog entitled "Admission Requirements and Procedures." Applicants not meeting all criteria may be admitted on a provisional or probationary basis.

For applicants with no prior training in engineering or with insufficient undergraduate materials coursework, the same minimum criteria will apply. Additionally, their records will be reviewed in relation to their materials backgrounds, and probationary status with specific remedial work required may be a basis for acceptance of such applicants.

The UT Arlington Materials Science and Engineering Program uses the following guidelines in the admission review process:

### Unconditional Admission

Unconditional admission into the Materials Science and Engineering Program requires the submission of items 1 through 5 below for each degree program. A typical successful applicant will have met the following admission requirements:

#### Master's Program

1. Minimum undergraduate GPA of 3.0 in the last 60 hours of undergraduate work in an appropriate engineering or science discipline. (For some international applicants where GPA calculation based on a 4.0 scale is not performed, a minimum performance level of 70 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core materials-related courses is of particular importance.
2. A GRE score of at least 400 (verbal) and 700 (quantitative). For those applicants whose GRE verbal score falls below 400, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable, veracious recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

#### Doctoral Program

1. Minimum undergraduate GPA of 3.3 in the last 60 hours of undergraduate work in an appropriate engineering or science discipline. (For some international applicants where GPA calculation based on a 4.0 scale is not performed, a minimum performance level of 75 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core materials-related courses is of particular importance.
2. A GRE score of at least 425 (verbal) and 750 (quantitative). For those applicants whose GRE verbal score falls below 425, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable, veracious recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS

English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

### Probationary Admission

Probationary admission into the Materials Science and Engineering Program may be permitted under the following conditions for each degree program:

#### Master's Program

1. If an applicant meets any two of the items 1, 2, and 3 above for the master's program.
2. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
3. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

#### Doctoral Program

1. If an applicant meets any two of the items 1, 2, and 3 above for the doctoral program.
2. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
3. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

### Provisional Admission

An applicant who is unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Deferred

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

### Denial of Admission

A candidate may be denied admission if he/she has less than satisfactory performance in two out of three of the first three admission criteria.

### Waiver of Graduate Record Exam

A waiver of the Graduate record Exam may be considered for a UT Arlington graduate who graduated within the past three years and has completed an engineering or science degree closely related to materials science and engineering. The student's GPA must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study and (2) in all undergraduate coursework completed at UT Arlington. The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees (with GPA of 3.3 or above) from U.S. universities with an ABET accredited engineering program or other select U.S. universities subject to graduate advisor's approval. The waiver of the GRE applies only to applicants for the master's degree programs. Interested applicants should contact the Materials Science and Engineering Graduate Advisor.

## Eligibility for Scholarships/Fellowships

Students that are admitted will be eligible for available scholarship or fellowship support. Award of scholarships or fellowships will be based on the student's relative standing with respect to other qualified applicants.

## Continuation

The Materials Science and Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified professional engineers and scientists, has established certain policies and procedures. In addition to the requirements of the Graduate School listed elsewhere in this catalog, to continue in the program each materials science and engineering graduate student must:

1. Maintain at least a B (3.0) overall GPA in all coursework, and
2. Demonstrate suitability for professional practice.

At such time as questions are raised by materials science and engineering graduate faculty regarding either of the above, the student will be notified and will be given the opportunity to respond to the Committee on Graduate Studies for Materials Science and Engineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "[Grievances Other than Grades.](#)"

## Degree Requirements

### Master's Degrees

**Master of Science in Materials Science and Engineering:** The Master of Science degree is a research-oriented degree in which completion of a thesis is mandatory. The program consists of a minimum of 24 credit hours of coursework (a minimum of 18 credit hours in MSE courses) and an acceptable thesis (minimum of six credit hours).

**Master of Engineering in Materials Science and Engineering:** The Master of Engineering degree is an engineering practice-oriented program requiring a minimum of 36 credit hours (A minimum of 24 credit hours of coursework must be in MSE courses.). A maximum of six hours may be a special project (MSE 5394 and MSE 5395).

**MSE 5300 Introduction to Materials Science and Engineering:** This course must be taken by any students whose academic backgrounds are different from Materials Science and Engineering. An exemption may be granted by the Graduate Advisor if it is determined that the student has a solid foundation for Materials Science and Engineering. The credit for MSE 5300 will not be counted towards the total credits required for graduation. However, the grade of MSE 5300 will be counted in calculating the GPA.

The M.S. and M. Engr. degree programs require successful completion of the following four core courses:

- MSE 5304. Analysis of Materials
- MSE 5305. Solid State Physics and Thermodynamics of Materials
- MSE 5312. Mechanical Behavior of Materials
- MSE 5321. Phase Transformations of Materials

### B.S. to Ph.D. Track

In addition to the requirements listed below for the Ph.D. degree, a B.S.-Ph.D. Track student will be required to enroll in at least three hours of research each semester during the student's first two years, receiving a pass/fail grade (no R grade) in these hours. A B.S.-Ph.D. student must have a faculty research (dissertation) advisor prior to the start of the student's second full semester. A

B.S.-Ph.D. student must take the Ph.D. diagnostic examinations prior to the start of the student's third full semester.

## Doctor of Philosophy

The Ph.D. degree program involves an interdisciplinary and multidisciplinary approach which requires students to complete a set of Materials Science and Engineering core courses augmented by elective offerings in aerospace engineering, biomedical engineering, chemistry, civil engineering, electrical engineering, materials science, mechanical engineering and physics. The degree is a research degree which requires the candidate successfully to carry out independent research in an area acceptable to the Committee on Graduate Studies for Materials Science and Engineering. A student's research is directed by a faculty member from any of the departments or programs participating in the Materials Science and Engineering Program.

The Ph.D. degree program requires successful completion of the following curriculum components:

1. A minimum of 24 semester hours of graduate coursework is expected for students entering with an appropriate master's degree or, for highly qualified students, a minimum of 42 semester hours of graduate coursework is expected for student's entering with a bachelor's degree, as approved by the Committee on Graduate Studies for Materials Science and Engineering. The 42 semester hours may include MSE 5392 and MSE 5393. Additional coursework may be required by the student's doctoral dissertation committee.

2. Four core courses or their equivalent are required for all doctoral students:

MSE 5304. Analysis of Materials  
MSE 5305. Solid State Physics and Thermodynamics of Materials  
MSE 5312. Mechanical Behavior of Materials  
MSE 5321. Phase Transformations of Materials

3. One of these two courses is required for all doctoral students:

MSE 5345. Ceramic Materials  
MSE 5347. Polymer Materials Science

4. Three of the following supplemental elective courses must be taken by all doctoral students, as approved by the Committee on Graduate Studies for Materials Science and Engineering. Courses from other disciplines may also be taken, which requires permissions from the Graduate Advisor and student's Supervising Advisor.

MSE 5315. Fatigue of Engineering Materials  
MSE 5316. Tribology and Coatings  
MSE 5320. Nanoscale Materials  
MSE 5330. Fundamentals of Corrosion Science and Engineering  
MSE 5333. Magnetic Properties of Materials  
MSE 5336. Electrical Properties of Materials  
MSE 5341. Transmission Electron Microscopy in Materials Science  
MSE 5345. Ceramic Materials  
MSE 5347. Polymer Materials Science  
MSE 5351. Current Topics in Nanotechnology  
MSE 5352. Solar Energy Materials and Devices  
MSE 5353. Fundamentals of Sustainable Energy  
MSE 5354. Solid State Electronic Devices  
MSE 5355. Materials for Energy

- Elective courses will be taken by all doctoral students which will allow specialization within a particular academic discipline. Graduate courses in chemistry, physics and engineering will be selected for this purpose in consultation with the student's research advisor, subject to approval by the Committee on Graduate Studies for Materials Science and Engineering.
- MSE 5300 Introduction to Materials Science and Engineering: This course must be taken by any students whose academic backgrounds are different from Materials Science and Engineering. An exemption may be granted by the

Graduate Advisor if it is determined that the student has a solid foundation for Materials Science and Engineering. The credit for MSE 5300 will not be counted towards the total credits required for graduation. However, the grade of MSE 5300 will be counted in calculating the GPA.

After completion of the first year's coursework (i.e., core courses), students must satisfactorily complete diagnostic examinations which may be written or oral or written and oral with a supplemental interview with faculty members, as determined by the Committee on Graduate Studies in Materials Science and Engineering.

Upon completion of all or nearly all of the coursework requirements and after having demonstrated research ability through partial completion of dissertation research, a student must satisfactorily complete a comprehensive examination.

The dissertation research will be formulated in conjunction with the student's faculty research advisor who may be associated with any of the following academic disciplines participating in the Materials Science and Engineering Program: aerospace engineering, biomedical engineering, chemistry, civil engineering, electrical engineering, materials science, mechanical engineering, and physics. The dissertation research represents the culmination of the student's academic efforts and is expected to demonstrate original and independent research activity and be a significant contribution to knowledge in the field.

## MSE Courses

### MSE5141 – TRANSMISSION ELECTRON MICROSCOPY LAB

0 Lecture Hours · 1 Lab Hour

Specimen preparation. Operation of the transmission electron microscope. Beam alignment and rotation calibration. Bright field and dark field imaging. Weak beam imaging. Examination of defects.

### MSE5190 – SPECIAL TOPICS IN MATERIALS SCIENCE AND ENGINEERING

1 Lecture Hour · 0 Lab Hours

May be repeated for credit when topic changes.

### MSE5191 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING

1 Lecture Hour · 0 Lab Hours

Topics selected from various areas of materials science and engineering. Work performed as a thesis substitute normally will be accomplished under the course number 5391, with prior approval of the Committee on Graduate Studies.

### MSE5192 – MASTER'S COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Directed study, consultation, and comprehensive examination over coursework leading to the Master of Engineering degree in Materials Science and Engineering. Required of all Master of Engineering students in the semester they plan to graduate.

### MSE5193 – SEMINAR IN MATERIALS SCIENCE AND ENGINEERING

1 Lecture Hour · 0 Lab Hours

Selected topics in materials science and engineering presented by faculty, students, and invited lecturers.

### MSE5290 – SPECIAL TOPICS IN MATERIALS SCIENCE AND ENGINEERING

2 Lecture Hours · 0 Lab Hours



May be repeated for credit when topic changes.

### **MSE5291 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING**

2 Lecture Hours · 0 Lab Hours

Topics selected from various areas of materials science and engineering. Work performed as a thesis substitute normally will be accomplished under the course number 5391, with prior approval of the Committee on Graduate Studies.

### **MSE5300 – INTRODUCTION TO MATERIALS SCIENCE AND ENGINEERING**

3 Lecture Hours · 0 Lab Hours

Physical, mechanical, electrical, optical, magnetic, thermal, and chemical properties of metals, semiconductors, ceramics, polymers, composites, and aggregates and the relationships between these properties and the electronic, crystal, micro- and macro-structures of the materials.

### **MSE5304 – ANALYSIS OF MATERIALS**

2 Lecture Hours · 3 Lab Hours

Theoretical understandings and practical applications of various characterization techniques to materials analysis, ranging from x-rays and electron diffraction, x-ray spectroscopy, and surface topography, are discussed. Practice of these techniques in lab class typically includes SEM spectroscopy, powder diffraction, Laue diffraction, and the double crystal x-ray diffraction.

### **MSE5305 – SOLID STATE PHYSICS AND THERMODYNAMICS OF MATERIALS**

3 Lecture Hours · 0 Lab Hours

Fundamentals of Solid State Physics and principles of classical thermodynamics and statistical thermodynamics.

### **MSE5310 – DISLOCATION THEORY**

3 Lecture Hours · 0 Lab Hours

Theory of dislocations and their reactions and interactions in crystalline materials developed and extended into a basic understanding of mechanical properties of crystalline materials.

### **MSE5312 – MECHANICAL BEHAVIOR OF MATERIALS**

3 Lecture Hours · 0 Lab Hours

Concepts of stress and strain, theory of plasticity. Elementary dislocation theory. Deformation of single crystals. Strengthening mechanisms like solid solution strengthening, precipitation hardening, etc. Elementary concepts in fracture mechanics. Microscopic aspects of fracture, fatigue, and creep of materials.

### **MSE5314 – FRACTURE MECHANICS**

3 Lecture Hours · 0 Lab Hours

Theory and applications of linear elastic fracture mechanics. Topics include stress analysis of cracks, crack-tip plasticity, fatigue and stress corrosion. Applicability to materials selection, failure analysis and structural reliability reviewed.

### **MSE5315 – FATIGUE OF ENGINEERING MATERIALS**

3 Lecture Hours · 0 Lab Hours

Cyclic deformation, fatigue crack initiation and growth in ductile solids. Application of fracture mechanics to fatigue. Mechanisms of crack closure. Variable and multiaxial fatigue and corrosion fatigue. Fatigue of brittle solids.

### **MSE5316 – TRIBOLOGY, LUBRICATION AND COATINGS**

**3** Lecture Hours · **0** Lab Hours

The course aims to provide a comprehensive understanding of the Tribology and Lubrication process in materials. This course will employ theoretical and practical examples. Mechanism of coating deposition for tribological, oxidation and corrosion protection. Prerequisite: Permission of Instructor.

### **MSE5320 – NANOSCALE MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the synthesis, properties and applications of inorganic thin films and nanoparticles.

### **MSE5321 – PHASE TRANSFORMATIONS OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

The theory of homogeneous and heterogeneous transformations, nucleation and growth, martensitic transformations, heat treatment and control of microstructure.

### **MSE5330 – CORROSION**

**3** Lecture Hours · **0** Lab Hours

Quantitative application of electrochemical principles to corrosion reactions. Effects of metallurgical factors and environmental conditions on oxidation, erosion, and cracking discussed along with materials selection.

### **MSE5331 – FERROELECTRIC DEVICES**

**2** Lecture Hours · **3** Lab Hours

Crystallography and its relation to ferroelectrics, effects of crystal symmetry on crystal properties, isotropic and anisotropic properties, matrix and tensor representation of physical properties, transformation of axes, principal axes of tensor, crystal properties in matrix notation, matrix method, electrostatics, thermodynamics of electrification, origin of spontaneous polarization, ferroelectric materials, fabrication of ceramics and in depth discussion of representative ferroelectric, electrostrictive, dielectric and piezoelectric devices. Fabrication and characterization of piezoelectric actuator. Prerequisite: permission of instructor.

### **MSE5333 – MAGNETIC PROPERTIES OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Classical and quantum mechanical understandings of magnetic properties of materials. Specific applications of these properties to various devices are discussed. Prerequisite: MSE 5405 or permission of instructor.

### **MSE5334 – OPTICAL PROCESSES IN SOLID MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Basic understanding of optical response of materials based on classical and quantum models. Particular focus on all phenomena involving light in semiconductors and their optoelectronic applications. Optical properties of solid materials with reduced dimensionality such as thin films and quantum wells and dots. Prerequisite: MSE 5405 or permission of instructor.

### **MSE5336 – ELECTRICAL PROPERTIES OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Advanced discussion of electronic structure, transport mechanisms in metals, semiconductors and superconductors, with applications to materials used in various electronic devices.

### **MSE5339 – FAILURE ANALYSIS AND RELIABILITY ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The basic scope of this course is to understand 1) various types of failure modes in engineering materials, 2) contributing factors to those failures and 3) analysis and detection methods employed in the relevant industries. The failure of engineering materials under discussion includes those by mechanical, electrical



and chemical load. Specific cases of discussion include materials for structural as well as microelectronics applications. Also discussed will be the method of statistical analysis and its modeling.

### **MSE5341 – TRANSMISSION ELECTRON MICROSCOPY IN MATERIALS SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Crystallography, stereographic projections, and reciprocal lattice. Specimen preparation in transmission electron microscopy. Dynamical and kinematical theories of electron diffraction. Interpretation of diffraction patterns and transmission electron micrographs. Use of the transmission electron microscope.

### **MSE5345 – CERAMIC MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Crystal structure of ceramic materials. Phase equilibria in ceramic materials. The processing of ceramics and ceramic matrix composites. Strengthening mechanisms and mechanical properties of ceramics and ceramic matrix composites including flexure, tensile, fracture toughness, fatigue, and creep.

### **MSE5346 – ADVANCED POLYMER CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Polymer synthesis and reactions including condensation, free-radical, ionic, and coordination polymerizations; principles of polymerization including thermodynamics and kinetic considerations; physical characterizations including determinations of absolute molecular weights, relative molecular weights, morphology, glass transitions, and polymer crystallinity; relationships between macromolecular structure, properties, and uses of polymeric materials. Also offered as MSE 5346. Prerequisite: CHEM 2321 and 2322 or permission of instructor.

### **MSE5347 – POLYMER MATERIALS SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Intermolecular forces of attraction in high polymers, polymer synthesis, morphology and order in crystalline polymers, mechanics of amorphous polymers, time-dependent mechanical behavior, transitional phenomena, mechanical behavior of semicrystalline polymers.

### **MSE5348 – FUNDAMENTALS OF COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Fundamental relationships between the mechanical and hygrothermal behavior and the composition of multiphase media; failure criteria. Offered as AE 5315, ME 5348, and MSE 5348. Credit will be granted only once.

### **MSE5349 – ADVANCED COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Review of current state-of-the-art applications of composites: composite structural analysis; structural properties, damage characterization and failure mechanisms; stiffness loss due to damage, notched sensitivity; delamination; impact; fatigue characteristics; composite material testing; material allowables; characteristics of composite joints. Also offered as ME 5349 and MSE 5349. Credit will be granted only once. Prerequisite: ME 5348 or MSE 5348 or AE 5315 or consent of the instructor.

### **MSE5351 – CURRENT TOPICS IN NANOTECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Review and discussion of the latest advances in the field of nanoscale science and technology. Topics include molecular electronics, chemical and biological sensors, synthesis of nanoscale materials, carbon nanotubes, nanowires, nanoparticles, atom-wires, self-assembled monolayers, nanoscale composite materials and techniques for observing and manipulating atoms and molecules.

### **MSE5352 – SOLAR ENERGY MATERIALS AND DEVICES**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of photovoltaic devices and solar energy materials used for the devices. Topics include thermodynamics of solar energy conversion, carrier generation and recombination, the solid-state device physics of p-n junction under illumination, various state-of-the-art photovoltaic materials, simulation of photovoltaic devices, and solar module technologies.

### **MSE5353 – FUNDAMENTALS OF SUSTAINABLE ENERGY**

**3** Lecture Hours · **0** Lab Hours

Basic concepts and applications of energy generation and storage. Topics cover a broad spectrum of sustainable energy technologies, including thermal, tide, solar, biomass, wind and electrochemical devices, with emphasis on fundamentals in materials & engineering.

### **MSE5354 – SOLID STATE ELECTRONIC DEVICES**

**3** Lecture Hours · **0** Lab Hours

Fundamentals and applications of modern electronic devices. Topics include electrical properties of semiconductors, p-n junctions, field-effect transistors, bipolar junction transistors, and integrated circuits.

### **MSE5355 – MATERIALS FOR ENERGY**

**3** Lecture Hours · **0** Lab Hours

The course aims to introduce concepts and design of advanced materials for sustainable energy generation and storage systems. It will cover polymer electrolyte materials, metallic nanoparticles, semiconductors, and nano-fabrication in clean energy conversion, energy storage, fuel cells, photovoltaic cells, and other emerging energy harvesting and storage.

### **MSE5390 – SPECIAL TOPICS IN MATERIALS SCIENCE AND ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topic changes.

### **MSE5391 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Topics selected from various areas of materials science and engineering. Work performed as a thesis substitute normally will be accomplished under the course number 5391, with prior approval of the Committee on Graduate Studies.

### **MSE5392 – RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING I**

**3** Lecture Hours · **0** Lab Hours

Research course with credit granted according to work performed. The student will have to put together a research plan for the semester with approval of his/her dissertation advisor. End of semester requirement is a written report of research performed with results and discussion. A presentation at the end of the semester on research progress may be required.

### **MSE5393 – RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING II**

**3** Lecture Hours · **0** Lab Hours

Research course with credit granted according to work performed. The student will have to put together a research plan for the semester with approval of his/her dissertation advisor. End of semester requirement is a written report of research performed with results and discussion. A presentation at the end of the semester on research progress may be required. Prerequisite: MSE 5392.

### **MSE5394 – MASTER'S RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING I**

**3** Lecture Hours · **0** Lab Hours

The student will carry out a hands-on project under a guidance of his/her supervising professor. The student will need to provide a written project report. At the end of semester, the student will present his/her project results to MSE faculty members and students. The MSE faculty members will decide the grade.

### **MSE5395 – MASTER'S RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING II**

**3** Lecture Hours · **0** Lab Hours

The student will carry out a hands-on project under a guidance of his/her supervising professor. The student will need to provide a written project report. At the end of semester, the student will present his/her project results to MSE faculty members and students. The MSE faculty members will decide the grade.  
Prerequisite: MSE 5394.

### **MSE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **MSE5405 – PHYS THERMO MAT**

**3** Lecture Hours · **0** Lab Hours

### **MSE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **MSE5998 – THESIS**

**0** Lecture Hours · **0** Lab Hours

### **MSE6196 – MSE INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

### **MSE6197 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING**

**1** Lecture Hour · **0** Lab Hours

May be repeated for credit.

### **MSE6198 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**1** Lecture Hour · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

### **MSE6298 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**2** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

### **MSE6396 – MSE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

### **MSE6397 – ADVANCED STUDIES IN MATERIALS SCIENCE AND**

## **ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit.

## **MSE6398 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

## **MSE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

## **MSE6696 – MSE INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

## **MSE6698 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

## **MSE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

## **MSE6996 – MSE INTERNSHIP**

**9** Lecture Hours · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

## **MSE6998 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

## **MSE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

## **MSE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
    - Bioengineering
    - Civil Engineering
    - Computer Science and Engineering
    - Electrical Engineering
    - Industrial and Manufacturing Systems Engineering
    - Materials Science and Engineering
    - Mechanical & Aerospace Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Mechanical & Aerospace Engineering

College of Engineering

### Chair Erian Armanios

Web [www.uta.edu/mae/](http://www.uta.edu/mae/)  
Email [info@mae.uta.edu](mailto:info@mae.uta.edu)  
Phone 817.272.2561  
Fax 817.272.5010

500 West First Street

---

### Degrees / Certificates

#### Master's Degrees

Aerospace Engineering, M.Engr.  
Aerospace Engineering, M.S.  
Mechanical Engineering, M.Engr.  
Mechanical Engineering, M.S.

#### Doctoral Degrees

Aerospace Engineering, B.S. to Ph.D.  
Aerospace Engineering, Ph.D.  
Mechanical Engineering, B.S. to Ph.D.  
Mechanical Engineering, Ph.D.

#### Certificates

Mech/Aerospace Unmanned Vehicle systems Certificate,

---

### Graduate Faculty

[Endel larve](#)  
[Baxter Mullins](#)  
[Flora Pinegar](#)  
[Sunand Santhanagopalan](#)  
[Robert Taylor](#)

#### Professor

[Dereje Agonafer](#)  
[Erian Armanios](#)  
[Wen Chan](#)  
[Abdolhossein Haji-Sheikh](#)  
[David Hullender](#)  
[Kent Lawrence](#)  
[Frank Lu](#)  
[Cheng Luo](#)  
[Seiichi Nomura](#)  
[Bo Wang](#)  
[Donald Wilson](#)  
[Robert Woods](#)  
[Seung You](#)

#### Associate Professor

[Bernd Chudoba](#)  
[Dragos Dancila](#)  
[Brian Dennis](#)  
[Atilla Dogan](#)  
[Haiying Huang](#)  
[Andrew Makeev](#)  
[Desheng Meng](#)  
[Panayiotis Shiakolas](#)  
[Kamesh Subbarao](#)  
[Albert Tong](#)

#### Assistant Professor

[Ashfaq Adnan](#)  
[Alan Bowling](#)  
[Robert Harris](#)  
[Ankur Jain](#)  
[Daejong Kim](#)  
[Luca Maddalena](#)  
[Luca Massa](#)  
[Hyejin Moon](#)  
[Donghyun Shin](#)  
[Bo Yang](#)

#### Professor Emeritus

[Roger Goolsby](#)

#### Senior Lecturer

[Zhen Han](#)  
[Ratan Kumar](#)  
[Nancy Michael](#)  
[Clarence Wimberly](#)

#### Lecturer

[Cecil Harris](#)

---

### Graduate Advisors

#### [Atilla Dogan](#)

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, M.Engr.*  
*Aerospace Engineering, M.S.*  
*Aerospace Engineering, Ph.D.*

#### [Seiichi Nomura](#)

*Mechanical Engineering, M.Engr.*  
*Mechanical Engineering, M.S.*  
*Mechanical Engineering, Ph.D.*

#### [Flora Pinegar](#)

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, Ph.D.*  
*Mechanical Engineering, B.S. to Ph.D.*  
*Mechanical Engineering, Ph.D.*

---

### Department Information

#### Courses

## Department Information

**Objective – Aerospace Engineering**

### **Admission Requirements**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred**
- **Denial of Admission**
- **Waiver of the Graduate Record Examination**
- **Criteria for Award of Fellowships and Assistantships**
- **Fast Track Program for Master's Degree in Aerospace Engineering**
- **B.S. to Ph.D. Program**

### **Core Areas in the Aerospace Engineering Program**

#### **Degree Requirements**

- **All Graduate Degrees**
- **Master of Science or Master of Engineering**
- **Requirements for the Master of Science Degree**
- **Doctor of Philosophy**

#### **Objective – Mechanical Engineering**

- **Admission Requirements**
- **Waiver of the Graduate Record Exam**
- **Criteria for Award of Fellowships and Assistantships**
- **Fast Track Program for Master's Degree in Mechanical Engineering**

#### **Continuation**

#### **Degree Requirements**

- **Core Courses**
- **Master of Science in Mechanical Engineering**
- **Master of Engineering in Mechanical Engineering**
- **Manufacturing Engineering Option**
- **Doctor of Philosophy**

### **Objective – Aerospace Engineering**

The overall objective of the graduate program in Aerospace Engineering is to develop in a student the ability to define a technical problem, establish an appropriate mathematical or experimental model based on a firm understanding of the physical nature of the problem, analyze the problem by theoretical, numerical, or experimental techniques, and evaluate the results. Although this ability is developed in the context of aerospace problems, it is applicable to the engineering of any physical system. The program is designed for a student with any of the following specific objectives:

1. A sound foundation in advanced mathematics, science, and engineering which will equip the student well for research and development work or for further advanced study toward a doctoral degree in engineering.
2. A program of advanced study which allows specialization in one of the following areas:
  - Fluid dynamics, aerodynamics and propulsion (theoretical and applied aerodynamics, gas dynamics, viscous fluid mechanics, turbulence, computational and experimental fluid dynamics, bio-fluidics, hypersonic flow theory, high-temperature gas dynamics, V/STOL and rotorcraft aerodynamics, air-breathing



and rocket propulsion);

- Structural mechanics and structures (solid mechanics, aerospace structures, structural dynamics, composite structures and material characterization, damage tolerance and durability, smart structures, structure optimization, sensor technology, high-temperature structures and materials, aeroelasticity);
  - Flight mechanics and controls (atmospheric and space flight mechanics, orbital mechanics, guidance, navigation and control);
  - Vehicle design (conceptual aircraft design, atmospheric flight vehicle design, spacecraft design, computer-aided engineering).
3. A balanced but non-specialized program of advanced study in aerodynamics, astronautics, flight dynamics, structural analysis, propulsion, and fluid mechanics, with emphasis on experimental techniques and modern mathematical analysis.

## Admission Requirements

Applicants for the master's or doctoral degrees must have either a baccalaureate or master's degree in engineering or science. Applicants who have completed a bachelor's degree and wish to pursue a doctoral degree without completing a master's degree may apply for admission in the Bachelor of Science (B.S.) to Ph.D. Track. The minimum admission requirements to this highly competitive track are the same as those for all doctoral applicants. Doctoral candidates shall also demonstrate through previous academic preparation the potential to carry out independent research in Aerospace Engineering. All applicants must meet the general requirements of the Graduate School as stated in the section of this catalog entitled "Admission Requirements and Procedures". Applicants not meeting all criteria may be admitted on a provisional or probationary basis.

For applicants with no prior training in engineering or with insufficient undergraduate Aerospace Engineering coursework, the same minimum criteria will apply. Additionally, their records will be reviewed in relation to their mathematics, engineering, and science backgrounds, and probationary status may be a basis for acceptance of such applicants, with specific undergraduate remedial work required.

The UT Arlington Aerospace Engineering Program uses the following guidelines in the admission review process:

### Unconditional Admission

**Unconditional admission into the Aerospace Engineering Program requires the submission of items 1 through 5 below for each degree program. To be unconditionally admitted, an applicant must at least meet conditions 1, 2, 3, and 4.**

#### Master's Program

1. Minimum undergraduate GPA of 3.0 in the last 60 hours of undergraduate work in an appropriate engineering or science discipline. (For some international applicants where GPA calculations based on a 4.0 system are not performed, a minimum performance level of 65 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core Aerospace Engineering courses is of particular importance.
2. A GRE score of at least 400 (verbal) and 700 (quantitative). For those applicants whose GRE verbal score falls below 400, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS

English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 20 for the listening section.

### **Doctoral Program**

1. Minimum GPA of 3.3 in the last 60 hours taken in the major field of study in an appropriate engineering or science discipline. (For some international applicants where GPA calculations based on a 4.0 system are not performed, a minimum performance level of 70 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core Aerospace Engineering courses is of particular importance.
2. A GRE score of at least 450 (verbal) and 750 (quantitative). For those applicants whose GRE verbal score falls below 450, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable recommendations via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, IELTS score of 7.0, or TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section, and 21 for the listening section.

### **Probationary Admission**

**Probationary admission into the Aerospace Engineering Program may be permitted under the following conditions for each degree program:**

#### **Master's Program**

1. If the applicant meets any three of the items 1, 2, 3, and 4 above for the master's program.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 20 for the listening section.

#### **Doctoral Program**

1. If an applicant meets any three of the items 1, 2, 3, and 4 above for the doctoral program.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, IELTS score of 7.0, or TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section, and 21 for the listening section.

### **Provisional Admission**

An applicant who is unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### **Deferred**

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

### Denial of Admission

A candidate may be denied admission if he/she has less than satisfactory performance in two out of the first three admission criteria.

### Waiver of the Graduate Record Examination

A waiver of the Graduate Record Examination may be considered for a UT Arlington graduate who has completed a BSAE degree within the past 3 years. The student's GPA must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study and (b) in all undergraduate coursework completed at UT Arlington. The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees in Aerospace Engineering (with GPA of 3.25 or above) from U.S. universities with an ABET accredited engineering program or other select U.S. universities subject to graduate advisor's approval. The waiver of the GRE applies only to applicants for the masters degree programs. Interested applicants should contact the Aerospace Engineering Graduate Advisor.

### Criteria for Award of Fellowships and Assistantships

Applicants who demonstrate skills, experience or interests that meet the needs of the AE Graduate Program will be considered for fellowships or assistantships.

### Fast Track Program for Master's Degree in Aerospace Engineering

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in Aerospace Engineering to satisfy degree requirements leading to a master's degree in Aerospace Engineering while completing their undergraduate studies. When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to 9 hours of graduate level coursework designated by the Aerospace Engineering Program to satisfy both undergraduate and graduate degree requirements. In the limiting case, a student completing the maximum allowable hours (9) while in undergraduate status would have to take only 24 additional hours to meet minimum requirements for graduation in a 33 hour thesis master's degree program (M.S.) or 28 additional hours for a 37 hour non-thesis master's degree program (M. Engr.)

Interested UT Arlington undergraduate Aerospace Engineering students should apply to the Aerospace Engineering Program when they are within 30 hours of completing their bachelor's degrees. They must have completed at least 30 hours at UT Arlington, achieving a GPA of at least 3.0 in those courses, and have an overall GPA of 3.0 or better in all college courses. Additionally, they must have completed at least 16 hours of specified undergraduate foundation courses with a minimum GPA of 3.3 in those courses. Program details are provided in the UT Arlington Undergraduate Catalog. Contact the Undergraduate Advisor or Graduate Advisor in Aerospace Engineering for more information about the program.

### B.S. to Ph.D. Program

The B.S. to Ph.D. Program is an accelerated program in which the student bypasses the M.S. thesis and proceeds directly to the Ph.D. dissertation research. Requirements for unconditional admission to the B.S. to Ph.D. Degree Program include:

- An overall GPA, as calculated by the Graduate School, of 3.3 or higher in undergraduate coursework.
- Relevance of the student's previous degrees to the AE curriculum.
- Reputation of the universities or colleges the student has attended.
- A GRE score of at least 500 (verbal) and 750 (quantitative).
- Three satisfactory written recommendation forms from prior professors or supervisors.
- A written essay on the student's goals and reasons for pursuing graduate studies.

## Core Areas in the Aerospace Engineering Program

The four core areas in the Aerospace Engineering program along with the recommended courses in each core area are listed below:

### 1. Fluid Mechanics, Aerodynamics and Propulsion

- AE 5313 Fluid Dynamics
- AE 5342 Gas Dynamics
- AE 5326 Air-Breathing Propulsion

### 2. Solid Mechanics and Structures

- AE 5330 Finite Element Methods
- AE 5340 Structural Aspects of Design
- AE 5331 Structural Dynamics

### 3. Flight Mechanics and Controls

- AE 5302 Advanced Flight Mechanics
- AE 5362 Guidance, Navigation and Control of Aerospace Vehicles

### 4. Flight Vehicle Design

- AE 5368 Flight Vehicle Synthesis and Systems Engineering

## Degree Requirements

### All Graduate Degrees

- All entering students must be proficient in mathematics, engineering analysis, and computer programming. (*Students not meeting these requirements may be admitted on a probationary basis and given a plan of remedial undergraduate coursework*).
- No graduate credit will be granted for courses that are required in the undergraduate Aerospace Engineering curriculum.
- The Master of Science and Doctoral candidates in Aerospace Engineering shall enroll in the Graduate Seminar (AE 5101) a minimum of three times (see course description).

All candidates are required to select a Supervising Professor and obtain an approved program of work in the second full semester or after 12 hours are completed.

### Master of Science or Master of Engineering

The Department of Mechanical and Aerospace Engineering offers both the Master of Science and the Master of Engineering degrees in Aerospace Engineering.

### Requirements for the Master of Science Degree

The Master of Science (M.S.) Degree in Aerospace Engineering is a research-oriented program in which completion of a thesis is mandatory. A minimum of 33 credit hours is required as follows:

- Two core courses (one course from either core areas one or two and one course from another of the four core areas, six credit hours)
- Two math or engineering analysis courses (six credit hours)
- Four courses (twelve credit hours) related to a specialty in Aerospace Engineering
- Six credit hours of thesis. The student must enroll in AE 5398 or AE 6297 every semester in which the student is actively involved in thesis preparation or research, except that the student must enroll in AE 5698 in the semester of graduation.
- A minimum of three credit hours of Graduate Seminar (AE 5101)

### Requirements for the Master of Engineering Degree

The Master of Engineering (M.Engr.) Degree in Aerospace Engineering is an engineering practice-oriented program. A minimum of 37 credit hours is required as follows:

- Three core courses (one course each from core areas one and two and a third course from either areas three or four, nine credit hours)
- Two math/engineering analysis courses (six credit hours)
- Seven elective courses (21 credit hours) in engineering, mathematics, and/or science relating to the student's interest areas. The elective courses must include a minimum of one hour and no more than six hours of special project courses (AE 5191, 5291 or 5391).
- A minimum of one credit hour of Graduate Seminar (AE 5101)

For both the M.S. and the M. Engr. degrees, the balance of the required coursework hours may be chosen in consultation with the Supervising Professor to meet the student's needs and interests. Normally these additional elective courses should be selected from the offerings of the Program in Aerospace Engineering or the Program in Mechanical Engineering. Courses taken outside the two programs require approval of the student's Supervising Professor as well as the Graduate Advisor.

### Doctor of Philosophy

- The Ph.D. degree requires a minimum of 24 hours of graduate-level course work beyond the Master's degree, and will include a scholarly dissertation that provides a significant original contribution to Aerospace Engineering.
- The Ph.D. degree course requirement can be tailored to satisfy the individual student's aspirations in choice of the area of specialization. However, to meet the educational goals of a broad-based technical background in Aerospace Engineering, it is expected that each student will take sufficient course work to obtain in-depth knowledge in at least two core areas of Aerospace Engineering.
- Students whose background is in a field other than Aerospace Engineering must satisfy the Master's degree core requirements.
- There is no foreign language requirement for the Ph.D.
- **Diagnostic Exam:** All students entering the Ph.D. program are required to take the Ph.D. Diagnostic Exam. Students admitted into AE Ph.D. program with MS degree in Aerospace Engineering or equivalent must take the diagnostic exam at the end of the 1st semester. This exam is offered twice per year, during the week preceding the start of classes for the fall and spring semesters. Possible outcomes of this evaluation are: 1) continuation in the doctoral program, 2) approval to continue with certain specified remedial work, 3) failure with approval to retake, 4) termination in the program.
- **Comprehensive Exam:** Students are eligible to take the comprehensive examination after satisfying all requirements stipulated by the Diagnostic Exam Committee and giving evidence to their doctoral committee of adequate academic achievement by having completed all or most coursework requirements. The comprehensive examination is used to determine if the student has the necessary background and specialization required for the dissertation research and if the student can organize and conduct the research. *An applicant must pass this examination to be admitted to candidacy for the Ph.D. degree.*

### B.S. to Ph.D. Track

- In addition to the requirements listed above for the Ph.D. degree, a B.S.-Ph.D. Track student will be *required to enroll in at least three hours of research each semester during the student's first two years, receiving a pass/fail grade (no R grade) in these hours.*
- A student may be exempted from enrolling in research hours in the student's initial semester.
- A B.S.-Ph.D. Track student must have a faculty research (dissertation) advisor prior to the start of the student's second full semester.
- Students in the BS-Ph.D. program must take the Ph.D diagnostic exam within the first year from the start of their Ph.D.

## Objective – Mechanical Engineering

The graduate program provides opportunities for professional development in such forms as: instructional courses to enhance technical competence in areas of mechanical engineering practice; training through a variety of experiences in design, development, research, experimentation, and/or analysis in joint efforts with faculty and peers; specialized courses of study required for entry into career fields allied to the mechanical engineering discipline; guided individual study under faculty supervision; and supportive coursework for programs leading to careers that require interdisciplinary competence.

A student with aid from a faculty advisor plans a program that will be consistent with his or her technical interests and the available facilities and course offerings. Typically, programs are classified as:

- Thermal Science
- Fluid Science
- Mechanical Design and Manufacturing
- Solid Mechanics and Structures
- Controls and Systems

## Admission Requirements

### Admission Criteria for Master's and Ph.D. Programs

Admission to the graduate program in ME is based on equal weighting of the following five criteria:

1. An overall GPA, as calculated by the Graduate School, of 3.0 or higher in undergraduate coursework is required for admission to the M.S. program. A 3.3 GPA is required for admission to the Ph.D. program. (For some international applicants where GPA calculations based on a 4.0 system are not performed, a minimum performance level of 65 percentile for M.S. applicants and 70 percentile is expected for Ph.D. applicants. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core Mechanical Engineering courses is of particular importance.
2. A GRE score of at least 146 (400 in old scaling) (verbal) and 155 (700 in old scaling) (quantitative) for M.S. applicants, and at least 150 (450 in old scaling)(verbal) and 159 (750 in old scaling) (quantitative) for Ph.D. applicants.
3. Three satisfactory written recommendation forms from prior professors or supervisors.
4. A written essay on the student's goals and reasons for pursuing graduate studies.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. For M.S. applicants, minimum performance levels expected for each test are: TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 20 for the listening section, paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, or IELTS score of 6.5. For Ph.D. applicants, minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section, and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### Admission Status

1. Unconditional Admission: To be unconditionally admitted, an applicant must at least meet conditions 1, 2, 3, and 4.
2. Probationary Admission: M.S. applicants who fail to meet the conditions for unconditional admission, but satisfy any three of items 1, 2, 3 and 4, will be considered for probationary admission.
3. Provisionary Admission: Applicants who are unable to supply all of the required



documentation prior to the admission deadline, but who otherwise appear to meet the admission criteria, may be granted provisional admission.

4. Denial: Applicants who fail to meet at least two of the first four admission criteria will normally be denied admission.
5. Deferral: A deferred decision may be granted when an application file is incomplete or when a denied decision is not appropriate.

### **Admission Requirements for B.S. to Ph.D. Track**

1. An overall GPA, as calculated by the Graduate School, of 3.3 or higher in undergraduate coursework.
2. A GRE score of at least 150 (450 in old scaling) (verbal) and 159 (750 in old scaling) (quantitative).
3. Three satisfactory written recommendation forms from prior professors or supervisors.
4. A written essay on the student's goals and reasons for pursuing graduate studies.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### **Probationary Admission**

Probationary admission into the Mechanical Engineering Program may be permitted under the following conditions for each degree program:

#### **Masters Program**

1. If the applicant meets any three of the items 1, 2, 3 and 4 above for the masters program.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section and 20 for the listening section, paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, or IELTS score of 6.5.

#### **Doctoral Program and BS to PhD track**

1. If an applicant meets any three of the items 1, 2, 3, and 4 above for the doctoral program or BS to PhD track.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### **Provisional Admission**

An applicant who is unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### **Deferred Admission**

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

### **Denial of Admission**

A candidate may be denied admission if he/she has less than satisfactory performance in two out of the first three admission criteria.

### **Admission Requirements for B.S. to Ph.D. Track**

The B.S. to Ph.D. program is an accelerated program in which a student proceeds directly to the Ph.D. dissertation research and bypasses the M.S. thesis. Requirements for unconditional admission to this program include the following:

1. Minimum GPA of 3.3 in the last 60 hours taken in the major field of study in an appropriate engineering or science discipline. (For some international applicants where GPA calculations based on a 4.0 system is not performed, a minimum performance level of 70 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core mechanical engineering courses is of particular importance.
2. A GRE score of at least 150 (450 in old scaling) (verbal) and 155 (750 in old scaling) (quantitative).
3. Three favorable, veracious recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### **Waiver of the Graduate Record Exam**

A waiver of the Graduate Record Examination may be considered for a UT Arlington graduate who has completed a BSME degree within the past 3 years. The student's GPA must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study and (b) in all undergraduate coursework completed at UT Arlington. The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees in mechanical engineering (with GPA of 3.25 or above) from U.S. universities with an ABET accredited engineering program or other select U.S. universities subject to graduate advisor's approval. The waiver of the GRE applies only to applicants for the master's degree programs. Interested applicants should contact the Mechanical Engineering Graduate Advisor.

### **Criteria for Award of Fellowships and Assistantships**

Applicants who demonstrate skills, experience or interests that meet the needs of the ME Graduate Program will be considered for fellowships or assistantships.

### **Fast Track Program for Master's Degree in Mechanical Engineering**

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in Mechanical Engineering to satisfy degree requirements leading to a master's degree in Mechanical Engineering while completing their undergraduate studies. When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to 9 hours of graduate level coursework designated by the Mechanical Engineering Program to satisfy both undergraduate and graduate degree requirements. In the limiting case, a student completing the maximum allowable hours (9) while in undergraduate status would have to take only 21 additional hours to meet minimum requirements for graduation in a 30 hour thesis master's degree program (M.S.) or 27 additional hours for a non-thesis master's degree program (M. Engr.)

Interested UT Arlington undergraduate Mechanical Engineering students should apply to the Mechanical Engineering Program when they are within 30 hours of completing their bachelor's degrees. They must have completed at least 30 hours at UT Arlington, achieving a GPA of at least



3.0 in those courses, and have an overall GPA of 3.0 or better in all college courses. Additionally, they must have completed at least 11 hours of specified undergraduate foundation courses with a minimum GPA of 3.3 in those courses. Fast Track Program details are provided in the UT Arlington Undergraduate Catalog. Contact the Undergraduate Advisor or Graduate Advisor in Mechanical Engineering for more information about the program.

## Continuation

The Mechanical Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified professional engineers, has established certain policies and procedures. In addition to the requirements of the Graduate School listed elsewhere, to continue in the program each mechanical engineering graduate student must:

- Maintain at least a B (3.0) overall GPA in all coursework, and
- Demonstrate suitability for professional engineering practice.

At such time as questions are raised by mechanical engineering graduate faculty regarding either of the above, the student will be notified and will be provided the opportunity to respond to the Committee on Graduate Studies in Mechanical Engineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "[Grievances Other than Grades.](#)"

## Degree Requirements

### Core Courses

**Thermal Science:** ME 5316 Thermal Conduction, ME 5317 Convection Heat Transfer, ME 5318 Radiative Heat Transfer, ME 5321 Advanced Classical Thermodynamics

**Fluid Science:** ME 5313 Fluid Dynamics, ME 5342 Advanced Gas Dynamics I, ME 5344 Viscous Flows

**Design, Mechanics and Manufacturing:** ME 5310 Finite Element Methods, ME 5337 Introduction to Robotics, ME 5339 Structural Aspects of Design, ME 5311 Structural Dynamics

**Controls and Systems:** ME 5303 Classical Methods of Control Systems Analysis and Synthesis, ME 5305 Dynamic Systems Modeling, ME 5341 Control Systems Components.

**Analysis Courses:** ME 5331, ME 5332, approved mathematics courses.

### Master of Science in Mechanical Engineering

The Master of Science degree is a research-oriented program in which completion of a thesis is mandatory. A minimum of 30 credit hours is required as follows: three core courses (one course each in three of the four areas) and the two analysis courses listed above; three graduate courses (nine credit hours) related to a specialty in mechanical engineering (registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and the students committee chair otherwise they will not count towards graduation requirements); and six credit hours of thesis. In addition, all GTA/GRA Master of Science students are required to enroll in ME 5101 Seminar course. The student must enroll in ME 5398 or ME 6397 every semester in which the student is actively involved in thesis preparation or research, except that the student must enroll in ME 5698 in the semester of graduation.

### Master of Engineering in Mechanical Engineering

The Master of Engineering degree is an engineering practice-oriented program. A minimum of 36 credit hours is required as follows: four core courses (one in each area) and the two analysis courses listed above; six courses (18 credit hours) of elective graduate courses in engineering,

mathematics, and/or science relating to the student's interest areas. The elective courses may include as many as three hours of special project courses (ME 5391). Registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and student's committee chair otherwise they will not count towards graduation requirements.

### Manufacturing Engineering Option

Students desiring a program in manufacturing engineering may achieve this goal while meeting the requirements for a graduate degree in mechanical engineering. This is accomplished by selecting a specific program of courses. Upon completion, the student receives a Manufacturing Engineer's Certificate along with the M.S.M.E. or M.Engr.M.E. Specifics are available in the Mechanical Engineering office.

### Doctor of Philosophy

There is no foreign language requirement for the Ph.D. degree.

### B.S.-Ph.D. Track Students

To meet the educational goal of a broad-based technical background in Mechanical Engineering, it is expected that each student will take sufficient graduate coursework to obtain in-depth knowledge in at least two areas of Mechanical Engineering. Students whose background is in a field other than Mechanical Engineering must satisfy the BS core requirements. Note that registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and student's committee chair. Otherwise they will not count towards the graduation requirements. The doctoral degree program consists of a minimum of 42 credit hours of coursework beyond the bachelor's degree level plus 9 hours of dissertation and 2 hours of seminar and requires the successful completion of the following requirements:

1. Three core courses (9 credit hours) from at least two different areas, as listed below:
  - a. **Thermal Science:** ME 5316 Thermal Conduction, ME 5317 Convection Heat Transfer, ME 5318 Radiative Heat Transfer, ME 5321 Advanced Classical Thermodynamics
  - b. **Fluid Science:** ME 5313 Fluid Dynamics, ME 5342 Advanced Gas Dynamics I, ME 5344 Viscous Flows
  - c. **Design, Mechanics and Manufacturing:** ME 5310 Finite Element Methods, ME 5337 Introduction to Robotics, ME 5339 Structural Aspects of Design, ME 5311 Structural Dynamics
  - d. **Controls and Systems:** ME 5303 Classical Methods of Control Systems Analysis and Synthesis, ME 5305 Dynamic Systems Modeling, ME 5341 Control Systems Components
2. One additional course (3 credit hours) at the graduate level in one of the broad areas of Mechanical Engineering outside the student's major area of specialization. A core course is also acceptable for meeting this requirement.
3. Eight additional courses (24 credit hours) in the student's major area of research
4. Two courses (6 credit hours) of engineering analysis (ME 5331, 5332, or other approved mathematics courses).
5. Two credit hours of seminar
6. Nine credit hours for Dissertation
  - a. Doctoral students must register for a minimum total of 9 hours of dissertation research over the course of their programs of work. These hours may be accumulated over several terms or completed in a single term. The course hours of ME 6299, 6399, 6699, 6699, and/or 7399 are all counted towards this nine-hour requirement.
  - b. Doctoral students must be enrolled in 9 hours while completing organized coursework and 6 hours while exclusively enrolled in dissertation research in order to be considered full time except in the term they designate as their "completion term." The completion term is typically the term in which a student

successfully defends his or her dissertation, fully completes all degree requirements and graduates. Students may designate only one term as the completion term.

- c. Doctoral students must enroll in a minimum of 3 dissertation hours (7399) in the term designated as their completion term. Alternatively, students may complete and defend their dissertation while enrolled in 6 or 9-hour dissertation courses (6299, 6399, 6699 or 6999).
- d. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W, or F and must enroll in a minimum of 6 hours of dissertation research (6299, 6399, 6699 or 6999) every term until graduation.
- e. Students enrolled in the completion term meet enrollment requirements for holding fellowships awarded by the Office of Graduate Studies and GTA or GRA positions by enrolling in the required 3-hour completion term dissertation course.
- f. Students who wish to remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours each term as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Students should consult with the Office of Financial Aid and other funding agencies to be certain they enroll in sufficient hours to retain support.

Final course requirements are determined by the student's supervising committee.

#### **M.S.-Ph.D. Track Students**

To meet the educational goal of a broad-based technical background in Mechanical Engineering, it is expected that each student will take sufficient graduate coursework to obtain in-depth knowledge in at least two areas of Mechanical Engineering. Students whose background is in a field other than Mechanical Engineering must satisfy the Masters of Science core requirements. Note that registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and student's committee chair. Otherwise they will not count towards the graduation requirements. The doctoral degree program consists of a minimum of 24 credit hours of coursework beyond the Master's degree level plus 9 hours of dissertation and 2 hours of seminar and requires the successful completion of the following requirements:

1. Three core courses (9 credit hours) from at least two different areas, as listed below:
  - a. **Thermal Science:** ME 5316 Thermal Conduction, ME 5317 Convection Heat Transfer, ME 5318 Radiative Heat Transfer, ME 5321 Advanced Classical Thermodynamics
  - b. **Fluid Science:** ME 5313 Fluid Dynamics, ME 5342 Advanced Gas Dynamics I, ME 5344 Viscous Flows
  - c. **Design, Mechanics and Manufacturing:** ME 5310 Finite Element Methods, ME 5337 Introduction to Robotics, ME 5339 Structural Aspects of Design, ME 5311 Structural Dynamics
  - d. **Controls and Systems:** ME 5303 Classical Methods of Control Systems Analysis and Synthesis, ME 5305 Dynamic Systems Modeling, ME 5341 Control Systems Components.
2. One additional course (3 credit hours) at the graduate level in one of the broad areas of Mechanical Engineering outside the student's major area of specialization. A core course is also acceptable for meeting this requirement.
3. Three additional courses (9 credit hours) in the student's major area of research
4. One course (3 credit hours) of engineering analysis (ME 5331, 5332, or other approved mathematics courses).
5. Two credit hours of seminar
6. Nine credit hours (ME 6999) for Dissertation.
  - a. Doctoral students must register for a minimum total of 9 hours of dissertation

research over the course of their programs of work. These hours may be accumulated over several terms or completed in a single term. The course hours of ME 6299, 6399, 6699, 6699, and/or 7399 are all counted towards this nine-hour requirement.

- b. Doctoral students must be enrolled in 9 hours while completing organized coursework and 6 hours while exclusively enrolled in dissertation research in order to be considered full time except in the term they designate as their "completion term." The completion term is typically the term in which a student successfully defends his or her dissertation, fully completes all degree requirements and graduates. Students may designate only one term as the completion term.
- c. Doctoral students must enroll in a minimum of 3 dissertation hours (7399) in the term designated as their completion term. Alternatively, students may complete and defend their dissertation while enrolled in 6 or 9-hour dissertation courses (6299, 6399, 6699 or 6999).
- d. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W, or F and must enroll in a minimum of 6 hours of dissertation research (6299, 6399, 6699 or 6999) every term until graduation.
- e. Students enrolled in the completion term meet enrollment requirements for holding fellowships awarded by the Office of Graduate Studies and GTA or GRA positions by enrolling in the required 3-hour completion term dissertation course.
- f. Students who wish to remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours each term as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Students should consult with the Office of Financial Aid and other funding agencies to be certain they enroll in sufficient hours to retain support

Final course requirements are determined by the student's supervising committee. In addition, a student must pass three examinations before being awarded the Ph.D. degree: the Diagnostic Exam, the Comprehensive Exam, and the Final Exam (or Dissertation Examination).

A Diagnostic Examination will be administered to the student within the first two semesters after a Master's degree or before the accumulation of 42 semester hours of graduate work beyond the baccalaureate degree. The Diagnostic Exam is a written test of the student's capability to pursue successfully the doctorate degree, and it aids in developing the program of study for the student. The Diagnostic Examination tests fundamental knowledge in two technical areas of mechanical engineering. The student and the student's research advisor jointly choose the technical areas from the following five: (1) thermal science, (2) fluid science, (3) mechanical design and manufacturing, (4) solid mechanics and structures, and (5) controls and systems. The exam topics for the technical areas are given in the ME Ph.D. Diagnostic Exam handout. The diagnostic examination is normally offered twice a year the week prior to the beginning of the Fall and/or Spring semesters. A student should inform the ME graduate advisor in advance and no later than the middle of the long semester prior to the planned time of taking the exam and consult with the ME graduate advisor for the time and place of the diagnostic examination.

A comprehensive examination will be administered to the student after the successful completion of all phases of the diagnostic examination and before the student's research work for the dissertation. The comprehensive examination is used to determine if the student has the necessary background and specialization required for the dissertation research and if the student can organize and conduct the research. An applicant must pass this examination to be admitted to candidacy for the Ph.D. degree.

The student must enroll in at least three hours of dissertation courses (ME 6399-6999) or research courses (ME 6397-6999) every semester in which the student is actively involved in dissertation preparation or research, except that the student must enroll in ME 6999 in the semester of graduation.

The student must submit the Application for Candidacy and Final Program of Work to the Mechanical Engineering Committee on Graduate Studies immediately after completion of the Comprehensive Examination. Coursework taken for the Master's degree at this institution may be used to meet these requirements; however, courses listed for the Master's degree or any other degree cannot be listed as the actual course requirement on the Final Program of Work. Transfer work is not accepted in doctoral programs; however, such courses may provide a basis for waiving some course requirements.

The student must file the Request for Dissertation Defense form with the Graduate School at least two weeks prior to the defense. At the same time of requesting the exam, the student must also announce the exam to the members of the university community by posting fliers on the departmental bulletin boards and by providing an electronic statement to the ME graduate advisor to be posted on the departmental web page indicating details (title, abstract, advisor, time and place) of the exam. Approval of the dissertation by the members of the Dissertation Committee is required.

Please see the section entitled General Graduate School Regulations and Information in this Catalog for further details.

The grade of R (research in progress) is a permanent grade; completing course requirements in a later semester cannot change it. To receive credit for an R-graded course, the student must continue to enroll in the course until a passing grade is received.

An incomplete grade (the grade of I) cannot be given in a course that is graded R, nor can the grade of R be given in a course that is graded I. To receive credit for a course in which the student earned an I, the student must complete the course requirements. Enrolling again in the course in which an I was earned cannot change a grade of I. At the discretion of the instructor, a final grade can be assigned through a change of grade form.

Three-hour thesis courses and three- and six-hour dissertation courses are graded R/F/W only. The grade of P (required for degree completion for students enrolled in thesis or dissertation programs) can be earned only in six-hour thesis or nine-hour dissertation courses. In the course listings below, R-graded courses are designated either "Graded P/F/R" or "Graded R." Occasionally, the valid grades for a course change. Students should consult the appropriate Graduate Advisor or instructor for valid grade information for particular courses. (See also the sections titled "R" Grade, Credit for Research, Internship, Thesis or Dissertation Courses and Incomplete Grade in this catalog.)

### **B.S. to Ph.D. Track**

In addition to the requirements listed below for the Ph.D. degree, a B.S.-Ph.D. Track student will be required to enroll in at least three hours of research each semester during the student's first two years, receiving a pass/fail grade (no R grade) in these hours. A B.S.-Ph.D. student must have a faculty research (dissertation) advisor prior to the start of the student's second full semester. A B.S.-Ph.D. student must take the Ph.D. diagnostic examination prior to the start of the student's fourth full semester.

## **Certificate in Electronic Packaging**

### **Program objective and requirements:**

The Certificate in Electronic Packaging program provides graduate-level knowledge in the field of electronic packaging, with a concentration on numerical and experimental characterization of thermo/mechanical issues. Courses are taught by faculty of the departments of Mechanical and Aerospace Engineering and Materials Science and Engineering, plus other UT Arlington faculty and adjunct faculty as needed. Technical material covered in the classroom will be complemented by a number of seminars by industry leaders in the packaging field. Completion of the certificate program will provide a head start for UT Arlington students when joining industry and skills-enhancement opportunities for current industry employees.

There are two enrollment options: as a student pursuing a graduate degree or as a non-degree-



seeking special student. The special student avenue is tailored for individuals currently employed in an electronics-related industry. Students will receive the certificate after completing 12 credit hours of packaging courses, as advised by the certificate program director, and must have a cumulative GPA of 3.0 in the four selected courses. The time limit for completion of the Certificate in Electronic Packaging program is six years.

Applicants on a degree track must be admitted to the Master's degree program. Non-degree students must have a BS degree and a minimum GPA of 2.5. Special students who decide that they want to pursue a graduate degree after starting as a special student may transfer up to 12 credit hours of graduate level courses.

**Courses:**

- ME 5314 Fracture Mechanics in Structural Design
- ME 5346 Cooling of Electronic Packages
- ME 5352 Fundamentals in Electronic Packaging (mandatory)
- ME 5353 Computational Techniques in Electronic Packaging (mandatory)
- ME 5354 Failures and Their Prevention in Electronic Packages
- ME 5355 Mechanical Failure of Electronic Packages
- ME 5356 Chipscale Package
- ME 5361 Multidisciplinary Computations
- ME 5390 Smart Structures and Materials (Special Topics)
- MSE 5336 Electrical Properties of Materials
- EE 5343 Silicon Integrated Circuit Fabrication Technology
- EE 5344 Introduction to MEMS

## Graduate Certificate in Automotive Engineering

**Program objective:**

The University of Texas at Arlington is pleased to offer a Graduate Certificate in Automotive Engineering through the Arnold E. Petsche Center for Automotive Engineering. This certificate confirms the student's commitment to automotive engineering and the learning experience gained from being a contributing team member of a student design competition. Students shall be awarded the Graduate Certificate for Automotive Engineering by the College of Engineering and the Graduate School upon satisfactory completion of the certificate requirements with an overall grade point average of 3.0.

**Admission requirements:**

Students wishing to enroll only in the Graduate Certificate in Automotive Engineering but NOT a graduate degree program may apply for admission to UT Arlington as a non-degree seeking student. The GRE is not necessary. Admission to the certificate program allows participants to take the specific courses approved for the certificate program. Student are not allowed to take courses in excess of those required for the certificate. A Bachelor's degree in engineering with a GPA of 2.8 is required for admission through the Graduate School. Students with GPA's lower than 2.8 may be recommended for admission as special student by the Director of the Arnold E. Petsche Center for Automotive Engineering, based on the following admission enhancing factors: (1) the applicant's work experience and level of responsibility; (2) two letters of recommendation.

Students already enrolled in a Master's degree program at TU Arlington may enroll by submitting the appropriate application form to the certificate program director and his or her academic graduate advisor. Students who have completed a Master's degree may apply for admission to UT Arlington as a non-degree seeking student. In either case, a minimum GPA of 3.0 in Master's degree work is required.

**Academic requirements:**

Participants must satisfactorily complete 12 hours of required courses according to the following

criteria

Six hours of ME 5359 Applied Automotive Engineering (may be repeated for credit)

At least three hours from the following list:

- ME 5340 Automotive Engineering
- ME 5358 Racecar Engineering

No More that three hours from the following list, or other graduate level engineering course approved by the Director of the Arnold E. Petsche Center for Automotive Engineering

- ME 5341 Control System Components
- EE 5313 Microprocessor Systems

Students can take ME 5010 (Automotive Engineering Practicum, no credit hours) to be recognized as full team members on a competition team such as Formula SAE.

## AE Courses

### AE5101 – GRADUATE SEMINAR

1 Lecture Hour · 0 Lab Hours

May be repeated as often as required. The purpose is to acquaint peers and faculty with research in progress at UTA. The students present progress reports on their research. Prerequisite of graduate standing in MS. May be graded P/F.

### AE5191 – ADVANCED STUDIES IN AEROSPACE ENGINEERING

1 Lecture Hour · 0 Lab Hours

Individual research or design project performed for fulfilling the requirements of the Master of Engineering degree option. Prior approval of the AE Graduate Advisor is required for enrollment. A written and/or oral report is required. Will be graded P/F.

### AE5291 – ADVANCED STUDIES IN AEROSPACE ENGINEERING

2 Lecture Hours · 0 Lab Hours

Individual research or design project performed for fulfilling the requirements of the Master of Engineering degree option. Prior approval of the AE Graduate Advisor is required for enrollment. A written and/or oral report is required. Will be graded P/F.

### AE5300 – PREPARATORY COURSE FOR AEROSPACE ENGINEERING

3 Lecture Hours · 0 Lab Hours

May be repeated as often as required. The course may be offered with multiple sections, wherein each section is paired with a corresponding UG course being offered that semester. The purpose of this course is to strengthen academic preparation of students who were found inadequately prepared for a graduate degree in Aerospace Engineering. Students can concurrently enroll in multiple sections and may need to enroll in this course multiple times until their academic preparation is deemed complete. In order to pass this class, the student has to earn at least a B grade in aggregate based on all the assignments and exams. Will be graded P/F.

### AE5301 – ADVANCED TOPICS IN AEROSPACE ENGINEERING

3 Lecture Hours · 0 Lab Hours

To provide formal instruction in special topics pertinent to Aerospace Engineering from semester to semester depending on the availability of faculty. May be repeated for credit as provided topics change.

### AE5302 – ADVANCED FLIGHT MECHANICS

3 Lecture Hours · 0 Lab Hours

Rigid body motion. Kinematics and dynamics of aerospace vehicles. Linear and nonlinear control of aircraft and spacecraft. Advanced aircraft and spacecraft modeling and control issues. Prerequisite: MAE 3405 and MAE 4310.

### **AE5303 – CLASSICAL METHODS OF CONTROL SYSTEMS ANALYSIS AND SYNTHESIS**

**3** Lecture Hours · **0** Lab Hours

Equip the student with familiarity of significant tools of the control engineer. Topics covered include controllers and their effect on system performance and stability, block diagram algebra, stability and analysis, system performance definition, root locus, frequency techniques, and state variable methods. Digital simulation tools for design and simulation of control systems. Demonstration of controller design and performance in the laboratory. Also offered as ME 5303. Credit will be granted only once.

### **AE5305 – DYNAMIC SYSTEMS MODELING**

**3** Lecture Hours · **0** Lab Hours

To equip the student with the capability of determining the necessary equations for distributed and lumped parameter modeling of mixed physical system types including mechanical, fluid, electrical, and thermal components. Models are formulated for computer simulation and analysis for systems with deterministic and stochastic inputs. Topics of random vibration and system identification are included. Also offered as ME 5305. Credit will be offered only once.

### **AE5309 – COMPUTER AIDED DESIGN**

**3** Lecture Hours · **0** Lab Hours

Role of graphics; image representation, batch and interactive computing, methods of automated mathematical model generation, mainframe and microcomputing in engineering design. Application in mechanical, structural, thermal, controls areas of mechanical engineering. Also offered as ME 5309. Credit will be granted only once.

### **AE5310 – FINITE ELEMENT METHODS**

**3** Lecture Hours · **0** Lab Hours

Finite element method in the study of the static response of complex structures and of continua applications to field problems; analytical methods emphasized and digital computer application undertaken. Also offered as ME 5310. Credit will be granted only once.

### **AE5311 – STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Natural frequencies; forced and random response of complex structural systems studied through the use of the finite element method; computational aspects of these problems discussed, and digital computer applications undertaken. Also offered as ME 5311. Credit will be granted only once.

### **AE5312 – CONTINUUM MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Study of the underlying physical and mathematical principles relating to the behavior of continuous media; interrelationships between fluid and solid mechanics. Also offered as ME 5312. Credit will be granted only once.

### **AE5313 – FLUID DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Basic conservation laws, flow kinematics, special forms of the governing equations, two-dimensional potential flows, surface waves and some exact solutions of viscous incompressible flows. Offered as AE 5313. Credit will be granted only once.

### **AE5314 – FRACTURE MECHANICS IN STRUCTURAL DESIGN**



**3 Lecture Hours · 0 Lab Hours**

Linear elastic fracture mechanics, general yielding fracture mechanics, damage tolerance and durability design, fail safe and safe life design criteria, analysis of fatigue crack growth, residual strength analysis. Also offered as ME 5314. Credit will be granted only once.

### **AE5315 – FUNDAMENTALS OF COMPOSITES**

**3 Lecture Hours · 0 Lab Hours**

Fundamental relationships between the mechanical and hygrothermal behavior and the composition of multiphase media; failure criteria. Offered as AE 5315, ME 5348, and MSE 5348. Credit will be granted only once.

### **AE5322 – AEROELASTICITY**

**3 Lecture Hours · 0 Lab Hours**

Math models for the steady aerodynamics and structural stiffness of aircraft wings are presented and combined into a static aeroelastic math model. Loss of wing lift due to static aeroelasticity as well as the structural instability called aeroelastic divergence are covered.

### **AE5325 – COMBUSTION**

**3 Lecture Hours · 0 Lab Hours**

Fundamental treatment of problems involving simultaneous occurrence of chemical reaction and transfer of heat, mass and momentum. Topics include kinetically controlled combustion phenomena; diffusion flames in liquid fuel combustion; combustion of solids; combustion of gaseous fuel jets; flames in premixed gasses. Offered as AE 5325 and ME 5325. Credit will be granted only once.

### **AE5326 – AIR-BREATHING PROPULSION**

**3 Lecture Hours · 0 Lab Hours**

Development of thrust and efficiency equations, thermodynamic cycle analysis, cycle design methods of aerospace propulsion systems, component performance analysis methods, component matching and dynamic interactions, and vehicle/propulsion-system integration.

### **AE5327 – COMPUTATIONAL AERODYNAMICS I**

**3 Lecture Hours · 0 Lab Hours**

Solution of engineering problems by finite- difference methods, emphasis on aerodynamic problems characterized by single linear and non-linear equations, introduction to and application of major algorithms used in solving aerodynamics problems by computational methods.

### **AE5328 – COMPUTATIONAL AERODYNAMICS II**

**3 Lecture Hours · 0 Lab Hours**

Review of the fundamental equations of aerodynamics, development of methods for solving Euler, boundary-layer, Navier-Stokes, and parabolized Navier-Stokes equations, application to practical aerodynamic analysis and design problems.

### **AE5331 – ANALYTIC METHODS ENGINEERING**

**3 Lecture Hours · 0 Lab Hours**

Introduction to advanced analytic methods in engineering. Methods include multivariable calculus and field theory, Fourier series, Fourier and Laplace Transforms. Prerequisite: Undergraduate degree in engineering, physics, or mathematics. Offered as AE 5331 and ME 5331. Credit will be granted only once.

### **AE5332 – ENGINEERING ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to partial differential equations and complex variable theory with application to modeling of physical systems. Also offered as ME 5332. Credit will be granted only once.

### **AE5335 – OPTIMAL CONTROL OF DYNAMIC SYS**

**3** Lecture Hours · **0** Lab Hours

Linear and nonlinear optimization methods; optimal control; continuous time Ricatti equation; bang-bang control; singular arcs; differential inclusions; collocation techniques; design of optimal dynamic system trajectories. Also offered as ME 5335. Credit will be granted only once.

### **AE5336 – OPTIMAL ESTIMATION OF DYNAMIC SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Kalman filter design and implementation. Optimal filtering for discrete-time and continuous-time dynamical systems with noise. Wiener filtering. State-space determination. Prerequisite: Prior introductory systems or identification course is desirable. Also offered as ME 5336 and EE 6327. Credit will be granted only once.

### **AE5337 – INTRODUCTION TO ROBOTICS**

**3** Lecture Hours · **0** Lab Hours

An overview of industrial robots and their application to traditional and emerging applications. Coordinate systems and homogeneous transformations, kinematics of manipulators; motion characteristics and trajectories; dynamics and control of manipulators; actuation and design issues. Programming of industrial robotic manipulators in the laboratory. Also offered as ME 5337. Credit will be granted only once.

### **AE5338 – ANALYTICAL & COMPUTATIONAL DYN**

**3** Lecture Hours · **0** Lab Hours

The course focuses on developing the equations of motion for dynamic systems composed of multiple, connected and unconnected, rigid bodies using Kane's method and the Lagrangian approach. The resulting model is used to simulate and visualize the predicted motion. Topics include kinematics, Euler parameters, kinematic constraints, virtual work, the calculus of variations, energy, momentum, contact, impact, and checking functions. Also offered as ME 5338. Credit will be granted only once.

### **AE5339 – STRUCTURAL ASPECTS OF DESIGN**

**3** Lecture Hours · **0** Lab Hours

Emphasis on determination of stresses and prediction of failure in machine and structural components; stress-strain relations in elastic and plastic regions; static failure and failure criteria; contact stress; notched sensitivity; strain-fatigue life relationship; characteristics of cracks in structural components. Also offered as ME 5339. Credit will be granted only once.

### **AE5341 – CONTROL SYSTEM COMPONENTS**

**2** Lecture Hours · **3** Lab Hours

The components and hardware used in electronic, hydraulic, and pneumatic control systems; techniques of amplification, computation, compensation, actuation, and sensing; modeling of multiport systems as well as servo systems analysis. Pulse modulated systems. Prerequisite: Undergraduate introductory control course in Mechanical Engineering or equivalent or ME 5303 or equivalent. Also offered as ME 5341. Credit will be granted only once.

### **AE5342 – GAS DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Review of fundamental compressible flow theory, method of characteristics for perfect gases, the Rankine-Hugoniot conditions, linearized flow theory. Also offered as AE 5342. Credit will be granted only once.

### **AE5343 – TWO-PHASE FLOW AND BOILING HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

This is to introduce significant progress in phase change heat transfer and two-phase flow. Boiling heat transfer will be followed by the study of pressure drop and heat transfer in the pipes of two-phase flow. Boiling heat transfer includes pool boiling, forced convection boiling, and critical heat flux. Also selected topics by the instructor (heat pipe, condensation, Helmholtz wave instability, etc.). Also offered as ME

5343. Credit will be granted only once.

### **AE5344 – VISCOUS FLOWS**

3 Lecture Hours · 0 Lab Hours

Navier-Stokes equations and Prandtl's boundary layer approximations; laminar and turbulent boundary layers including internal and external flows. Also offered as ME 5344. Credit will be granted only once.

### **AE5345 – NUMERICAL HEAT TRANSFER**

3 Lecture Hours · 0 Lab Hours

Discussion of numerical methods for conduction and convection heat transfer problems includes introduction to various computational techniques suitable for digital computers. Finite difference method is emphasized. Also offered as ME 5345. Credit will be granted only once.

### **AE5347 – ROCKET PROPULSION**

3 Lecture Hours · 0 Lab Hours

Thrust and efficiency relations, trajectory analysis, introduction to design and performance analysis of chemical (liquid and solid), electrical and nuclear rocket systems, combined cycle propulsion systems, and pulse detonation rockets.

### **AE5348 – HYPERSONIC PROPULSION**

3 Lecture Hours · 0 Lab Hours

Design and performance analysis of propulsion systems for sustained flight at hypersonic speeds, airframe/propulsion system integration, supersonic combustion, finite-rate chemistry effects, radiative cooling.

### **AE5351 – HEAT EXCHANGER DESIGN**

3 Lecture Hours · 0 Lab Hours

Design procedures, system evaluations and design parameters in heat exchangers. Heat exchanger configurations; student design projects. Also offered as ME 5351. Credit will be granted only once.

### **AE5360 – MULTIDISCIPLINARY INVERSE DESIGN AND OPTIMIZATION**

3 Lecture Hours · 0 Lab Hours

For a new design of any realistic device to be competitive, it must satisfy a number of often conflicting requirements, objectives, and constraints. This course offers a variety of basic concepts and methodologies for inverse design and optimization with practical applications in fluid mechanics, heat transfer, elasticity, and electromagnetism. Offered as AE 5360 and ME 5360. Credit will be granted only once.

### **AE5362 – GUIDANCE, NAVIGATION, AND CONTROL OF AEROSPACE SYSTEMS**

3 Lecture Hours · 0 Lab Hours

Equilibrium glide trajectories for atmospheric flight. Design of guidance and navigation system for various aerospace vehicles. Discussion of the various guidance systems used in a homing missile seeker system, etc. Equilibrium glide trajectories for atmospheric flight, energy guidance methods. Selection and trade-off between various navigation components such as the IMU, GPS and other navigation components. Basics of Kalman filtering.

### **AE5363 – INTRODUCTION TO ROTORCRAFT ANALYSIS**

3 Lecture Hours · 0 Lab Hours

History of rotorcraft. Behavior of the rotor blade in hover and forward flight. Rotor configurations, dynamic coupling with the fuselage, elastic and aeroelastic effects. Offered as AE 5363 and ME 5363. Credit will be granted only once.

### **AE5364 – INTRODUCTION TO AERODYNAMICS OF ROTORCRAFT**

**3** Lecture Hours · **0** Lab Hours

Practical aerodynamics of rotors and other components of rotorcraft. Introduction to performance, handling qualities, and general flight mechanics related to rotorcraft design, test, and certification requirements. Emphasis is on real rotorcraft mission capabilities as defined by the customer. Also offered as ME 5364. Credit will be granted only once.

### **AE5365 – INTRODUCTION TO HELICOPTER AND TILTROTOR SIMULATION**

**3** Lecture Hours · **0** Lab Hours

Dynamic and aerodynamic modeling of rotorcraft elements using vector mechanics, linear algebra, calculus and numerical methods. Special emphasis on rotors, aerodynamic interference, proper axis system representation, model assembly methods and trimming. Offered as AE 5365 and ME 5365. Credit will be granted only once.

### **AE5367 – HIGH-SPEED AIRCRAFT AND SPACE ACCESS VEHICLE DESIGN**

**3** Lecture Hours · **0** Lab Hours

An introductory course on high-speed aircraft and space access vehicle design. The course concentrates on reusable flight vehicles. Topics covered are historical case studies, design disciplines, design space visualization and proof of design convergence. Prerequisites: consent of the instructor.

### **AE5368 – FLIGHT VEHICLE SYNTHESIS AND SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

An introductory course on multi-disciplinary design decision-making applied to flight vehicle design. The course introduces decision-making techniques leading to efficient aerospace product design. The following main topics are covered: a) management domain, b) operational domain, c) engineering domain. Prerequisites: MAE 4350, MAE 4351 or equivalent.

### **AE5369 – FLIGHT VEHICLE TESTING AND FLIGHT SIMULATION**

**3** Lecture Hours · **0** Lab Hours

An introductory course on flight test techniques and flight simulation. The course introduces flight vehicle certification from the perspective of the designer and test pilot. Classical flight test procedures and flight simulation techniques are introduced. Prerequisites: MAE 4350, MAE 4351 or equivalent.

### **AE5372 – PARAMETRIC SIZING OF HIGH-SPEED AIRCRAFT**

**3** Lecture Hours · **0** Lab Hours

An introductory course on high-speed aircraft design. Aimed to develop insight into basic concepts underlining the analysis and design of supersonic and hypersonic aircraft. Topics covered are historical case studies, design disciplines, and design methodologies. Prerequisite: MAE 4350, MAE 4351 or equivalent.

### **AE5374 – NONLINEAR SYSTEMS ANALYSIS AND CONTROLS**

**3** Lecture Hours · **0** Lab Hours

Nonlinear systems; phase plane analysis; Poincare-Bendixon theorems; nonlinear system stability; limit cycles and oscillations; center manifold theorem, Lyapunov methods in control; variable structure control; feedback linearization; backstepping techniques. Also offered as ME 5374. Credit will be granted only once.

### **AE5380 – DESIGN OF DIGITAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Difference equations, Z- and w-transforms, discrete TF (Transfer Function). Discrete equivalence (DE) to continuous TF. Aliasing & Nyquist sampling theorem. Design by DE, root locus in z-plane & Youla parameterization. Discrete state-space model, minimality after sampling, pole placement, Moore-Kimura method, linear quadratic regulator, asymptotic observer. Computer simulation and/or lab implementation. Also offered as ME 5380, EE 5324. Credit will be granted only once. Prerequisite: MAE 4310 or equivalent.

### **AE5381 – BOUNDARY LAYERS**

**3** Lecture Hours · **0** Lab Hours

An introductory course on boundary layers. The coverage emphasizes the physical understanding and the mathematical foundations of boundary layers, including applications. Topics covered include laminar and turbulent incompressible and compressible layers, and an introduction to boundary layer transition. Also offered as ME 5381. Credit will be granted only once.

### **AE5382 – ADVANCED ASTRONAUTICS**

**3** Lecture Hours · **0** Lab Hours

Topics include orbital mechanics, orbital maneuvering, relative motion, orbit determination and estimation, three body problem, perturbations and numerical techniques.

### **AE5383 – HYPERSONIC FLOW**

**3** Lecture Hours · **0** Lab Hours

General features of hypersonic flow fields. Inviscid hypersonic flow: thin shock layer theory, Newtonian flow, constant density solutions, small disturbance theory, method of characteristics.

### **AE5385 – HIGH TEMPERATURE GASDYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Surveys kinetic theory, statistical mechanics, and chemical reaction rate theory. Application to the prediction of thermodynamic properties of gasses and the analysis of problems in high-temperature gasdynamics.

### **AE5391 – ADVANCED STUDIES IN AEROSPACE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual research or design project performed for fulfilling the requirements of the Master of Engineering degree option. Prior approval of the AE Graduate Advisor is required for enrollment. A written and/or oral report is required. Will be graded P/F.

### **AE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Co-requisite: AE 5101.

### **AE5400 – PREPARATORY COURSE FOR AEROSPACE ENGINEERING**

**4** Lecture Hours · **0** Lab Hours

May be repeated as often as required. The course may be offered with multiple sections, wherein each section is paired with a corresponding UG course being offered that semester. The purpose of this course is to strengthen academic preparation of students who were found inadequately prepared for a graduate degree in Aerospace Engineering. Students can concurrently enroll in multiple sections and may need to enroll in this course multiple times until their academic preparation is deemed complete. In order to pass this class, the students has to earn at least a B grade in aggregate based all the assignments and exams. Will be graded P/F.

### **AE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/R/F. Co-requisite: AE 5101.

### **AE6196 – AEROSPACE ENGINEERING INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

For students participating in internship programs. May be repeated for credit. Requires prior approval of Graduate Advisor.

### **AE6197 – RESEARCH IN AEROSPACE ENGINEERING**

1 Lecture Hour · 0 Lab Hours

May be repeated for credit. Co-requisite: AE 5101.

### **AE6297 – RESEARCH IN AEROSPACE ENGINEERING**

2 Lecture Hours · 0 Lab Hours

May be repeated for credit. Co-requisite: AE 5101.

### **AE6299 – DISSERTATION**

2 Lecture Hours · 0 Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree

### **AE6310 – ADVANCED FINITE ELEMENT METHODS**

3 Lecture Hours · 0 Lab Hours

Modeling of large systems, composite and incompressible materials, substructuring, mesh generation, solids applications, nonlinear problems. Also offered as AE 6310. Prerequisite: ME 5310, AE 5310 or equivalent. Credit will be granted only once.

### **AE6311 – ADVANCED STRUCTURAL DYNAMICS**

3 Lecture Hours · 0 Lab Hours

Normal mode method for undamped and proportionally damped systems, component mode synthesis, generally damped systems, complex modes, effect of design modification on system response. Also offered as ME 6311. Prerequisite: ME 5311, AE 5311 or equivalent. Credit will be granted only once.

### **AE6315 – ADVANCED COMPOSITES**

3 Lecture Hours · 0 Lab Hours

Review of current state-of-the-art applications of composites: composite structural analysis; structural properties, damage characterization and failure mechanism; stiffness loss due to damage, notched sensitivity; delamination; impact; fatigue characteristics; composite material testing; material allowables; characteristics of composite joints. Also offered as ME 6315 and MSE 5349. Prerequisite: ME 5315, AE 5315 or MSE 5348 or equivalent. Credit will be granted only once.

### **AE6337 – ADVANCED ROBOTICS**

3 Lecture Hours · 0 Lab Hours

Advanced robotic design concepts considering structural statics, dynamics and control strategies for both rigid and flexible manipulators will be studied using optimization techniques and analytical approaches and introduction to micro- and mobile robotic devices. Study of emerging applications of robotics will be explored. Digital simulation of robotic devices and programming and demonstration of robotic devices in the laboratory. Prerequisites AE 5337, ME 5337 or equivalent. Credit will be granted only once.

### **AE6344 – HEAT TRANSFER IN TURBULENT FLOW**

3 Lecture Hours · 0 Lab Hours

Introduction to heat transfer in turbulent boundary layers including internal and external flows, turbulence structure, the Reynolds analogy, van Driest hypothesis, high and low Prandtl number two equation model, effects of surface roughness on heat transfer. Also offered as ME 6344. Credit will be granted only once.

### **AE6345 – TURBULENCE**

3 Lecture Hours · 0 Lab Hours

Physical, numerical and theoretical aspects of turbulence. Review of the conservation equations for incompressible flow. Statistical descriptions pertaining to fluid mechanics. Classical description of

turbulence via Reynolds averaging is developed with emphasis on homogeneous, isotropic turbulence. Application to free and wall-bounded flows. Modeling and simulation, including direct numerical simulation, classical turbulence modeling, PDF methods and large eddy simulation. Prerequisites: An advanced course in fluid mechanics (AE/ME 5313) or continuum mechanics (AE/ME 5312). Familiarity with vector or tensor notation is expected.

### **AE6397 – RESEARCH IN AEROSPACE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit. Co-requisite: AE 5101.

### **AE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree. Corequisite: AE 5101.

### **AE6697 – RESEARCH IN AEROSPACE ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

May be repeated for credit. Graded F/R/W. Corequisite: AE 5101.

### **AE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree. Corequisite: AE 5101.

### **AE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded F, R, P. Prerequisite: admission to candidacy for the Doctor of Philosophy degree. Corequisite: AE 5101.

### **AE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **ME Courses**

### **ME5010 – AUTOMOTIVE ENGINEERING PRACTICUM**

**0** Lecture Hours · **0** Lab Hours

Practical design experience as full member of automotive design competition team. Prerequisite: Permission of Director for the Arnold E. Petsche Center for Automotive Engineering

### **ME5101 – GRADUATE SEMINAR**



**1 Lecture Hour · 0 Lab Hours**

May be repeated as often as required. The purpose is to acquaint peers and faculty with research in progress at UTA. The students present progress reports on their research. Prerequisite of graduate standing in MS. May be graded P/F.

### **ME5191 – PROJECT STUDIES IN MECHANICAL ENGINEERING**

**1 Lecture Hour · 0 Lab Hours**

May be repeated for credit as topics change. Project work performed under a non-thesis degree will normally be accomplished under this course number, with prior approval of the Committee on Graduate Studies. May be graded pass/fail.

### **ME5291 – PROJECT STUDIES IN MECHANICAL ENGINEERING**

**2 Lecture Hours · 0 Lab Hours**

May be repeated for credit as topics change. Work performed as a thesis substitute will normally be accomplished under this course number, with prior approval of the Committee on Graduate Studies. May be graded P/F.

### **ME5303 – CLASSICAL METHODS OF CONTROL SYSTEMS ANALYSIS AND SYNTHESIS**

**3 Lecture Hours · 0 Lab Hours**

Equip the student with familiarity of significant tools of the control engineer. Topics covered include controllers and their effect on system performance and stability, block diagram algebra, stability and analysis, system performance definition, root locus, frequency techniques, and state variable methods. Digital simulation tools for design and simulation of control systems. Demonstration of controller design and performance in the laboratory. Also offered as AE 5303. Credit will be granted only once.

### **ME5305 – DYNAMIC SYSTEMS MODELING**

**3 Lecture Hours · 0 Lab Hours**

To equip the student with the capability of determining the necessary equations for distributed and lumped parameter modeling of mixed physical system types including mechanical, fluid, electrical, and thermal components. Models are formulated for computer simulation and analysis for systems with deterministic and stochastic inputs. Topics of random vibration and system identification are included. Also offered as AE 5305. Credit will be granted only once.

### **ME5306 – FLUID POWER CONTROL**

**3 Lecture Hours · 0 Lab Hours**

Mathematical models for hydraulic and pneumatic control components and systems including hydraulic pumps, motors, and spool valves. The application of electrohydraulic and hydromechanical servomechanisms for position and velocity control are treated. Theory supported by laboratory demonstrations and experiments.

### **ME5307 – OPTIMAL CONTROL OF DYNAMIC SYS**

**3 Lecture Hours · 0 Lab Hours**

Linear and nonlinear optimization methods; optimal control; continuous time Riccati equation; bang-bang control; singular arcs; differential inclusions; collocation techniques; design of optimal dynamic system trajectories. Also offered as ME 5335. Credit will be granted only once.

### **ME5309 – COMPUTER AIDED DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Role of graphics; image representation, batch and interactive computing, methods of automated mathematical model generation, mainframe and microcomputing in engineering design. Application in mechanical, structural, thermal, controls areas of mechanical engineering. Also offered as ME 5309. Credit will be granted only once.



### **ME5310 – FINITE ELEMENT METHODS**

**3** Lecture Hours · **0** Lab Hours

Finite element method in the study of the static response of complex structures and of continua; applications to field problems; analytical methods emphasized, and digital computer application undertaken. Also offered as AE 5310. Credit will be granted only once.

### **ME5311 – STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Natural frequencies; forced and random response of complex structural systems studied through the use of the finite element method; computational aspects of these problems discussed, and digital computer applications undertaken. Also offered as AE 5311. Credit will be granted only once.

### **ME5312 – CONTINUUM MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Study of the underlying physical and mathematical principles relating to the behavior of continuous media; interrelationships between fluid and solid mechanics. Also offered as AE 5312. Credit will be granted only once.

### **ME5313 – FLUID DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Basic conservation laws, flow kinematics, special forms of the governing equations, two-dimensional potential flows, surface waves and some exact solutions of viscous incompressible flows. Offered as AE 5313. Credit will be granted only once.

### **ME5314 – FRACTURE MECHANICS IN STRUCTURAL DESIGN**

**3** Lecture Hours · **0** Lab Hours

Linear elastic fracture mechanics, general yielding fracture mechanics, damage tolerance and durability design, fail safe and safe life design criteria, analysis of fatigue crack growth, residual strength analysis. Also offered as AE 5314. Credit will be granted only once.

### **ME5315 – FUNDAMENTALS OF COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Fundamental relationships between the mechanical and hygrothermal behavior and the composition of multiphase media; failure criteria. Also offered as AE 5315 and MSE 5348. Credit will be granted only once.

### **ME5316 – THERMAL CONDUCTION**

**3** Lecture Hours · **0** Lab Hours

Fundamental laws, initial and boundary conditions, basic equations for isotropic and anisotropic media, related physical problems and steady and transient temperature distributions in solid structures.

### **ME5317 – CONVECTION HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

Equations of motion of viscous fluids are reviewed and the energy equations are introduced. Exact and approximate solutions are made for forced convective problems with non-isothermal and unsteady boundaries. Free convection and combined free- and forced-convection problems are solved.

### **ME5318 – RADIATIVE HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

General equations of radiative transfer derived and solved for special problems, and the elements of atomic, molecular, and continuum radiation are introduced.

### **ME5319 – ADVANCED FINITE ELEMENT METHODS**

**3** Lecture Hours · **0** Lab Hours

Continuation of ME 5310. Modeling of large systems, composite and incompressible materials, substructuring, mesh generation, solids applications, nonlinear problems. Also offered as AE 5319. Prerequisite: ME 5310 or equivalent.

### **ME5321 – ADVANCED CLASSICAL THERMODYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of thermodynamics reviewed. Different treatments of principles studied, compared and formal relationships developed and applied to chemical, magnetic, electric and elastic systems.

### **ME5322 – ADVANCED STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Normal mode method for undamped and proportionally damped systems, component mode synthesis, generally damped systems, complex modes, effect of design modification on system response. Prerequisite: ME 5311 or equivalent.

### **ME5325 – COMBUSTION**

**3** Lecture Hours · **0** Lab Hours

Fundamental treatment of problems involving simultaneous occurrence of chemical reaction and transfer of heat, mass and momentum. Topics include kinetically controlled combustion phenomena; diffusion flames in liquid fuel combustion; combustion of solids; combustion of gaseous fuel jets; flames in premixed gasses. Offered as AE 5325 and ME 5325. Credit will be granted only once.

### **ME5331 – ANALYTIC METHODS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Introduction to advanced analytic methods in engineering. Methods include multivariable calculus and field theory, Fourier series, Fourier and Laplace Transforms. Prerequisite: Undergraduate degree in engineering, physics, or mathematics. Offered as AE 5331 and ME 5331. Credit will be granted only once.

### **ME5332 – ENGINEERING ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Introduction to partial differential equations and complex variable theory with application to modeling of physical systems. Also offered as AE 5332. Credit will be granted only once.

### **ME5335 – OPTIMAL CONTROL OF DYNAMIC SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Linear and nonlinear optimization methods; optimal control; continuous time Riccati equation; bang-bang control; singular arcs; differential inclusions; collocation techniques; design of optimal dynamic system trajectories. Also offered as AE 5335. Credit will be granted only once.

### **ME5336 – OPTIMAL ESTIMATION OF DYNAMIC SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Kalman filter design and implementation. Optimal filtering for discrete-time and continuous-time dynamical systems with noise. Wiener filtering. State-space determination. Prerequisite: introductory systems or identification course is desirable. Also offered as AE 5336 and EE 6327. Credit will be granted only once.

### **ME5337 – INTRODUCTION TO ROBOTICS**

**3** Lecture Hours · **0** Lab Hours

An overview of industrial robots and applications to traditional and emerging applications. Coordinate systems and homogeneous transformations, kinematics of manipulators; motion characteristics and trajectories; dynamics and control of manipulators; actuation and design issues. Programming of industrial

robotic manipulators in the laboratory. Also offered as AE 5337. Credit will be granted only once.

### **ME5338 – ANALYTICAL AND COMPUTATIONAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

The course focuses on developing the equations of motion for dynamic systems composed of multiple, connected and unconnected, rigid bodies using Kane's method and the Lagrangian approach. The resulting model is used to simulate and visualize the predicted motion. Topics include: kinematics, Euler parameters, kinematic constraints, virtual work, the calculus of variations, energy, momentum, contact, impact, and checking functions. Also offered as AE 5338. Credit will be granted only once.

### **ME5339 – STRUCTURAL ASPECTS OF DESIGN**

**3** Lecture Hours · **0** Lab Hours

Emphasis on determination of stresses and prediction of failure in machine and structural components; stress-strain relations in elastic and plastic regions; static failure and failure criteria; contact stress; notched sensitivity, strain-fatigue life relationship' characteristics of cracks in structural components. Also offered as AE 5339. Credit will be granted only once.

### **ME5340 – AUTOMOTIVE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Introduction to automotive engine types and performance, drive train modeling and vehicle loading characteristics, fueling requirements, fuel injection systems, tire characteristics and modeling, suspension characteristics and handling, braking systems and requirements. Course taught through lecture, student presentations and student design projects.

### **ME5341 – CONTROL SYSTEM COMPONENTS**

**2** Lecture Hours · **3** Lab Hours

The components and hardware used in electronic, hydraulic, and pneumatic control systems; techniques of amplification, computation, compensation, actuation, and sensing; modeling of multiport systems as well as servo systems analysis. Pulse modulated systems. Prerequisite: Undergraduate introductory control course in Mechanical Engineering or equivalent or ME 5303 or equivalent. Also offered as AE 5341. Credit will be granted only once.

### **ME5342 – GAS DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Review of fundamental compressible flow theory, method of characteristics for perfect gases, the Rankine-Hugoniot conditions, linearized flow theory. Also offered as AE 5342. Credit will be granted only once.

### **ME5343 – TWO-PHASE FLOW AND BOILING HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

This is to introduce significant progress in phase change heat transfer and two-phase flow. Boiling heat transfer will be followed by the study of pressure drop and heat transfer in the pipes of two-phase flow. Boiling heat transfer includes pool boiling, forced convection boiling, and critical heat flux. Also selected topics by the instructor (heat pipe, condensation, Helmholtz wave instability, etc.) Also offered as AE 5343. Credit will be granted only once.

### **ME5344 – VISCOUS FLOWS**

**3** Lecture Hours · **0** Lab Hours

Navier-Stokes equations and Prandtl's boundary layer approximations; laminar and turbulent boundary layers including internal and external flows. Also offered as AE 5344. Credit will be granted only once.

### **ME5345 – NUMERICAL HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

Discussion of numerical methods for conduction and convection heat transfer problems including

introduction to various computational techniques suitable for digital computers. Finite difference method is emphasized. Also offered as AE 5345. Credit will be granted only once.

### **ME5346 – COOLING OF ELECTRONIC PACKAGES**

**3** Lecture Hours · **0** Lab Hours

This course deals with the development and application of analytical models of thermal phenomena occurring in electronic equipment. The calculation of heat loads and temperature fields using different cooling techniques. Includes parameter evaluation and design studies.

### **ME5347 – HEAT EXCHANGER DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design procedures, system evaluations and design parameters in heat exchangers. Heat exchanger configurations; student design projects.

### **ME5348 – INTRODUCTION TO ALTERNATIVE ENERGY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

The course introduces: Principles and thermodynamics applied to fuel cell-based power generation systems; materials and manufacturing methods of two common fuel cells and their stacks; modeling, analysis, and design of fuel cells and various reformers; and design issue of balance of plants such as steam management systems.

### **ME5349 – ADVANCED COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Review of current state-of-the-art applications of composites; structural properties; structure analysis; damage characterization and failure mechanism; notched sensitivity; delamination; fatigue characteristics; composite material testing; characteristics of composite joints. Also offered as MSE 5349 and AE 5325. Prerequisite: ME 5348, MSE 5348, or AE 5315, or consent of instructor

### **ME5351 – PRINCIPLES OF SOUND AND VIBRATION CONTROL**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of sound and vibration control will be developed. The coupling of mechanical vibrations to unwanted acoustic radiation will be examined using time domain analysis, frequency domain (spectral) analysis and correlation techniques. Standard control methods, including active vibration suppression, will be covered.

### **ME5352 – FUNDAMENTALS IN ELECTRONIC PACKAGING**

**3** Lecture Hours · **0** Lab Hours

An introductory treatment of electronic packaging, from single chip to multichip, including materials, electrical design, thermal design, mechanical design, package modeling and simulation, processing considerations, reliability, and testing.

### **ME5353 – APPLICATION OF COMPUTATIONAL TECHNIQUES TO ELECTRONIC PACKAGING**

**3** Lecture Hours · **0** Lab Hours

This course will develop the student's capability to characterize the heat performance of electronic cooling devices by using "Commercial Computational Heat Transfer Codes (IDEAS ESC, Icepack, Flotherm, CFDace, ...)." In addition, the use of MacroFlow, a network based model, for system-level thermal design for electronics cooling will be presented. A number of industry-related problems ranging from first-level packages through system-level packages would be analyzed. At the end of the class, a student is expected to formulate and model complex industry-based problems using the commercial CFD codes. There will be frequent industry speakers on specific projects being studied in the class.

### **ME5354 – FAILURES AND THEIR PREVENTION IN ELECTRONIC PACKAGES**

**3** Lecture Hours · **0** Lab Hours

A comprehensive overview of the fundamental causes for failures in electronic assemblies which include the printed wiring board, package, and second-level assemblies. Failure detection techniques and methodologies, key failure analysis techniques used will be discussed.

### **ME5355 – MECHANICAL FAILURE OF ELECTRONIC PACKAGES**

**3** Lecture Hours · **0** Lab Hours

Failure analysis, fatigue of electronic packages, fracture and creep behavior of solders. Mechanical properties of substrate materials. Electromigration and failure mechanisms.

### **ME5356 – CHIPSCALE PACKAGING**

**3** Lecture Hours · **0** Lab Hours

Overview of area array packaging with special emphasis on the maturing chip scale packaging technology. Topics covered will include the design concepts of this technology, the materials related aspects, the manufacturing processes, and their reliability in a variety of applications.

### **ME5358 – RACECAR ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course intended for Formula SAE team members and other interested students to develop new systems or analyze concepts for the Formula SAE or Formula Electric racecar and related equipment. The students will form teams and perform research and development on projects related to automotive or racecar engineering.

### **ME5359 – APPLIED AUTOMOTIVE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to gain practical experience in the design and fabrication of parts or systems for automotive applications. The student must write a proposal, give a public oral presentation, and prepare a formal final report. The student must have attained full team member status in a student design competition team. Prerequisites: permission of Director of the Arnold E. Petsche Center for Automotive Engineering.

### **ME5360 – MULTIDISCIPLINARY INVERSE DESIGN AND OPTIMIZATION**

**3** Lecture Hours · **0** Lab Hours

For a new design of any realistic device to be competitive, it must satisfy a number of often conflicting requirements, objectives, and constraints. This course offers a variety of basic concepts and methodologies for inverse design and optimization with practical applications in fluid mechanics, heat transfer, elasticity, and electromagnetism. Offered as AE 5360 and ME 5360. Credit will be granted only once.

### **ME5363 – INTRODUCTION TO ROTORCRAFT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

History of rotorcraft. Behavior of the rotor blade in hover and forward flight. Rotor configurations, dynamic coupling with the fuselage, elastic and aeroelastic effects. Offered as AE 5363 and ME 5363. Credit will be granted only once.

### **ME5364 – INTRODUCTION TO AERODYNAMICS OF ROTORCRAFT**

**3** Lecture Hours · **0** Lab Hours

Practical aerodynamics of rotors and other components of rotorcraft. Introduction to performance, handling qualities, and general flight mechanics related to rotorcraft design, test, and certification requirements. Emphasis is on rotorcraft mission capabilities as defined by the customer. Also offered as AE 5364. Credit will be granted only once.

### **ME5365 – INTRODUCTION TO HELICOPTER AND TILTROTOR SIMULATION**

**3** Lecture Hours · **0** Lab Hours

Dynamic and aerodynamic modeling of rotorcraft elements using vector mechanics, linear algebra, calculus

and numerical methods. Special emphasis on rotors, aerodynamic interference, proper axis system representation, model assembly methods and trimming. Offered as AE 5365 and ME 5365. Credit will be granted only once.

### **ME5366 – FUEL CELLS AND APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

The course introduces: Principles and thermodynamics applied to fuel cell-based power generation systems; materials and manufacturing methods of two common fuel cells and their stacks; modeling, analysis, and design of fuel cells and various reformers; and design issue of balance of plants such as steam management systems.

### **ME5374 – NONLINEAR SYSTEMS ANALYSIS AND CONTROLS**

**3** Lecture Hours · **0** Lab Hours

Nonlinear systems; phase plane analysis; Poincare-Bendixon theorems; nonlinear system stability; limit cycles and oscillations; center manifold theorem, Lyapunov methods in control; variable structure control; feedback linearization; backstepping techniques. Also offered as AE 5374. Credit will be granted only once.

### **ME5380 – DESIGN OF DIGITAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Difference equations, z- and w- transforms, discrete TF (Transfer Function). Discrete equivalence (DE) to continuous TF. Aliasing & Nyquist sampling theorem. Design by DE, root locus in z- plane & Youla parameterization. Discrete state- space model, minimality after sampling, pole placement, Moore-Kimura method, linear quadratic regulator, asymptotic observer. Computer simulation and/or laboratory implementation Prerequisite: undergraduate level controls course or equivalent. Also offered as AE 5380, EE 5324. Credit will be granted only once.

### **ME5381 – BOUNDARY LAYERS**

**3** Lecture Hours · **0** Lab Hours

An introductory course on boundary layers. The coverage emphasizes the physical understanding and the mathematical foundations of boundary layers, including applications. Topics covered include laminar and turbulent incompressible and compressible boundary layers, and an introduction to boundary layer transition. Also offered as AE 5381. Credit will be granted only once.

### **ME5390 – SPECIAL TOPICS IN MECHANICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

To provide formal instruction in special topics pertinent to Mechanical Engineering from semester to semester depending on the availability of faculty. May be repeated provided topics differ.

### **ME5391 – ADVANCED STUDIES IN MECHANICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as topics change. Project work performed under a non-thesis degree will normally be accomplished under this course number, with prior approval of the Committee on Graduate Studies.

### **ME5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Thesis

### **ME5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Thesis Prerequisite: GRAD ME thesis major

### **ME5998 – THESIS**

9 Lecture Hours · 0 Lab Hours

Thesis Prerequisite: GRAD ME thesis major

### **ME6196 – MECHANICAL ENGINEERING INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

For students participating in internship programs. May be repeated for credit. Requires prior approval of ME Graduate Advisor.

### **ME6197 – RESEARCH IN MECHANICAL ENGINEERING**

1 Lecture Hour · 0 Lab Hours

May be repeated for credit.

### **ME6297 – RESEARCH IN MECHANICAL ENGINEERING**

2 Lecture Hours · 0 Lab Hours

May be repeated for credit.

### **ME6299 – DISSERTATION**

2 Lecture Hours · 0 Lab Hours

Prerequisite: Admission to candidacy for the Doctoral of Philosophy degree

### **ME6310 – ADVANCED FINITE ELEMENT METHODS**

3 Lecture Hours · 0 Lab Hours

Modeling of large systems, composite and incompressible materials, substructuring, mesh generation, solids applications, nonlinear problems. Also offered as AE 6310. Prerequisite: ME 5310, AE 5310 or equivalent. Credit will be granted only once.

### **ME6311 – ADVANCED STRUCTURAL DYNAMICS**

3 Lecture Hours · 0 Lab Hours

Normal mode method for undamped and proportionally damped systems, component mode synthesis, generally damped systems, complex modes, effect of design modification on system response. Also offered as ME 6311. Prerequisite: ME 5311, AE 5311 or equivalent. Credit will be granted only once.

### **ME6315 – ADVANCED COMPOSITES**

3 Lecture Hours · 0 Lab Hours

Review of current state-of-the-art applications of composites: composite structural analysis; structural properties, damage characterization and failure mechanism; stiffness loss due to damage, notched sensitivity; delamination; impact; fatigue characteristics; composite material testing; material allowables; characteristics of composite joints. Also offered as ME 6315 and MSE 5349. Prerequisite: ME 5315, AE 5315 or MSE 5348 or equivalent. Credit will be granted only once.

### **ME6316 – ADVANCED ROBOTICS**

3 Lecture Hours · 0 Lab Hours

Advanced design concepts such as application of optimization technique and analytical approaches such as 3-D homogeneous matrix method will be introduced. Structural dynamics and control strategy for both rigid and flexible manipulators will be studied.

### **ME6337 – ADVANCED ROBOTICS**

3 Lecture Hours · 0 Lab Hours

Advanced robotic design concepts considering structural statics, dynamics and control strategies for both



rigid and flexible manipulators will be studied using optimization techniques and analytical approaches and introduction to micro- and mobile robotic devices. Study of emerging applications of robotics will be explored. Digital simulation of robotic devices and programming and demonstration of robotic devices in the laboratory. Prerequisites AE 5337, ME 5337 or equivalent. Credit will be granted only once.

### **ME6344 – HEAT TRANSFER IN TURBULENT FLOW**

**3** Lecture Hours · **0** Lab Hours

Introduction to heat transfer in turbulent boundary layers including internal and external flows, turbulence structure, the Reynolds analogy, van Driest hypothesis, high and low Prandtl number two equation model, effects of surface roughness on heat transfer. Also offered as AE 6344. Credit will be granted only once.

### **ME6345 – TURBULENCE**

**3** Lecture Hours · **0** Lab Hours

Physical, numerical and theoretical aspects of turbulence. Review of the conservation equations for incompressible flow. Statistical descriptions pertaining to fluid mechanics. Classical description of turbulence via Reynolds averaging is developed with emphasis on homogeneous, isotropic turbulence. Application to free and wall-bounded flows. Modeling and simulation, including direct numerical simulation, classical turbulence modeling, PDF methods and large eddy simulation. Prerequisites: An advanced course in fluid mechanics (AE/ME 5313) or continuum mechanics (AE/ME 5312). Familiarity with vector or tensor notation is expected.

### **ME6397 – RESEARCH IN MECHANICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6697 – RESEARCH IN MECHANICAL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: Admission to candidacy for the Doctor of Philosophy degree.

### **ME6997 – RESEARCH IN MECHANICAL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Admission to candidacy for the Doctor of Philosophy degree.

### **ME7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment



requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Art + Art History

College of Liberal Arts

### Chair Robert Hower

Web [www.uta.edu/art/](http://www.uta.edu/art/)  
Email [npalmeri@uta.edu](mailto:npalmeri@uta.edu)  
Phone 817.272.2891  
Fax 817.272.2805

Office 335 Fine Arts Building

---

### Degrees / Certificates

**Master's Degrees**  
Art, M.F.A.

---

### Graduate Faculty

**Professor**

[Robert Hower](#)  
[Benito Huerta Lozano](#)  
[David Keens](#)  
[Kenda North](#)  
[Nancy Palmeri](#)  
[Mary Vaccaro](#)

**Associate Professor**

[Lisa Graham](#)  
[Marilyn Jolly](#)  
[R Leighton McWilliams](#)  
[Andrew Ortiz](#)  
[Jack Plummer](#)  
[Barton Weiss](#)  
[Nicholas Wood](#)

**Assistant Professor**

[Amanda Alexander](#)  
[Melia Belli](#)  
[Zenas Ikeda](#)  
[Darryl Lauster](#)  
[Benjamin Lima](#)  
[Dwain Ya'Ke Smith](#)  
[Salvatore Terrasi](#)

**Special Member**

[Bryan Florentin](#)  
[Sedrick Huckaby](#)  
[Stephen Laphthisophon](#)

---

## Graduate Advisors

**Nancy Palmeri**

*Art, M.F.A.*

---

## Department Information

### Courses

# Department Information

## Objective

### Admissions Requirements

- **Unconditional Admission**
- **Provisional Admission**
- **Probationary Admission**
- **Deferred Admission**
- **International Student Admission**

### Graduate Teaching Assistant

### Fellowships

### Advisement and Supervisory Committees

### Degree Requirements

- **M.F.A. Course Requirements**
- **Studio Art (ART)**
- **Graduate Review Exhibition Requirements**
- **Mid-Program Review Requirements**
- **M.F.A. Thesis Requirements**
- **M.A. in Humanities with Art History Concentration**

## Objective

The mission of the Program in Studio Art is to:

1. Encourage and guide MFA students to successfully complete the recognized terminal degree in the practice of art.
  - a. Self discipline
  - b. Self confidence
  - c. Proficiency in their work
  - d. Open Communication
2. Enable artists, filmmakers, and designers in the program to develop habits of:
  - a. Make connections with various media and mediums to expand visual and conceptual vocabulary
  - b. Meet distinguished artists, filmmakers and designers to enhance the meaningful on-going dialogue related to their work and future.
3. Enable students to:
4. Provide studio space for students to explore methods of concept development, the exploration of time based media, reflection and development of personal work.

5. Encourage students to develop new skills and enhance existing ones. Expand the conventional concepts of the "studio" and are encouraged to develop their personal style and direction.
6. Encourage graduates to compete for professional positions in teaching, artistic fields and pursue careers as exhibiting artists, filmmakers/writers, and designers.

## Admissions Requirements

A personal interview with the Graduate Advisor or members of the Studio Art faculty is recommended.

Three letters of recommendation are required, and it is suggested that at least two of the letters come from former educators or academic contact. A portfolio, transcripts, and letter of intent are also required. Please review the Art and Art History website, [www.uta.edu/art](http://www.uta.edu/art) for materials due dates.

### Unconditional Admission

Applicants must possess a bachelor's degree from an accredited college or university. Submit transcripts from all previous college or university work, and three letters of recommendation are required of all applicants. In addition, applicants should have a minimum Grade Point Average (GPA) of 3.0, as calculated by the Graduate School. Applicants must submit a portfolio and statement of intent. The Art and Art History faculty review all materials and positively recommend acceptance into the M. F. A. program.

### Provisional Admission

Those who have submitted their applications forms, but whose packets are incomplete, can be admitted provisionally if their GPA is at least 3.0, and if the program and the Graduate School have received official transcripts. In this case, incomplete materials could include letters of recommendation.

### Probationary Admission

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, portfolio, statement of intent, and GPA), can be admitted on probation, with the condition that they make no less than a B in the first 12 hours of coursework in their art concentration. Such students must complete no fewer than 9 credits during the semester in which they are on probation.

### Deferred Admission

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, portfolio, statement of intent, and GPA), and/or who have not submitted all of the materials required for unconditional admission, can have their applications deferred for one semester, until outstanding requirements and criteria are met.

### International Student Admission

International applicants must have a bachelor's degree from a regionally accredited U.S. college or university or its foreign equivalent, a GPA of at least 3.0 as calculated by the Graduate School, 3 letters of recommendation, portfolio and letter of intent to be considered for admission. In addition, applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL) or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:

Writing: 22  
 Speaking: 21  
 Reading: 20  
 Listening: 16

Those who do not meet the English proficiency requirement must satisfactorily complete courses in the ESOL area, as approved by the program and the Graduate School.

## Graduate Teaching Assistant

To be considered for a Graduate Teaching Assistant position, the candidate must be admitted unconditionally. Candidates whose native language is not English must submit a score 45 on the Test of Spoken English (TSE-A), a score of 23 on the TOEFL iBT Speaking subtest, or a score of 45 on UT Arlington's SEA test. GTA positions in the Department of Art and Art History are limited and are very competitive.

## Fellowships

To be considered for a Dean's Fellowship the candidate must have a favorable review in most of the evaluation criteria. Candidates must be new students coming to The University of Texas Arlington, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours of 3.0, and must be enrolled in a minimum of 6 hours in both long semesters to retain their fellowships. Fellowships in Department of Art and Art History are limited and very competitive.

## Advisement and Supervisory Committees

The Graduate Advisor will advise all incoming graduate students. After a student has selected a supervisory committee and submitted a program of work, the major professor becomes his/her advisor. Students should consult the Graduate Student Handbook for details on forming a supervisory committee, creating a program of work and other requirements.

## Degree Requirements

### M.F.A. Course Requirements

The graduate course requirements for the M.F.A. of 60 semester credit hours are normally distributed over six semesters of a three-year program. The student will be required to spend a minimum of three semesters in the M.F.A. program with one academic year in residency as a full time student.

#### Specific Course Requirements:

Area of Concentration	39 semester credit hours
Supporting Studio Courses	9 semester credit hours
Art History	9 semester credit hours
Free electives	3 semester credit hours
Combination will total	60

Courses outside the area of concentration (supporting and free electives) should be taken from faculty other than the major professor. It is strongly recommended that the students study with a minimum of three additional faculty members during the course of his/her program. Students are also encouraged to take a free elective outside the Art and Art History Department.

The supervisory committee will approve the course options (work) and scholarly research. It is emphasized that this is a committee/department option, not a student option.

## Studio Art (ART)

### Concentration Required Courses:

ART5330	CRITICAL PERSPECTIVES IN THE VISUAL ARTS & VISUAL COMMUNICATION
ART5340, 5640	RESEARCH IN INTERMEDIA (STUDIO)
ART5342, 5642	RESEARCH IN GLASS
ART5355, 5655	RESEARCH IN VISUAL COMMUNICATION
ART5360	TOPICS IN THE HISTORY OF ART (VARIED)
ART5383, 5683	RESEARCH IN FILM/VIDEO
ART5698	THESIS EXHIBITION
(6 HOURS OF CONCENTRATION COURSE)	

### Prescribed Elective Courses:

ART5320	HISTORY OF ART CRITICISM
ART5341, 5641	RESEARCH IN SCULPTURE
ART5342, 5642	RESEARCH IN GLASS
ART5343, 5643	RESEARCH IN PRINTMAKING
ART5347, 5647	RESEARCH IN DRAWING
ART5353, 5653	RESEARCH IN METALS
ART5355, 5655	RESEARCH IN VISUAL COMMUNICATION
ART5357, 5657	RESEARCH IN FILM/VIDEO
ART5359, 5659	RESEARCH IN PHOTOGRAPHY DIGITAL IMAGING
ART5363, 5663	RESEARCH IN CLAY
ART5371, 5671	RESEARCH IN PAINTING
ART5391	INDEPENDENT STUDY

### Example Course Sequence:

#### FIRST YEAR

FALL	SPRING
5330 Critical Perspectives	5300 Topics in the History of Art
56xx Research in	56xx Research in

Concentration	Concentration
	53xx Research in Supporting Studio
-----	-----
<b>9 Credits</b>	<b>12 Credits</b>

*SECOND YEAR\**

<b>FALL</b>	<b>SPRING</b>
5360 Topics in the History of Art	53xx Research in Supporting Studio
56xx Research in Concentration	56xx Research in Concentration
53xx Free Elective	
-----	-----
<b>12 Credits</b>	<b>9 Credits</b>

*THIRD YEAR*

<b>FALL</b>	<b>SPRING</b>
53xx Research in Supporting Studio	53xx Research in Concentration
56xx Research in Concentration	**56xx Thesis Exhibition
	(Research in Concentration)
-----	-----
<b>9 Credits</b>	<b>9 Credits</b>

**Total 60 credit hours required for MFA**

\*Mid-Program review completed after 30 credits

\*\*Thesis Exhibition, Oral Exam and research paper completed during this semester. Summer opportunities may be available to complete required course work. This is dependent upon the faculty availability.

**Graduate Review Exhibition Requirements**

Each spring semester, the graduate students will be required to organize a summer exhibition of their recent work.

1. The number of work each student may exhibit will depend upon the number of exhibitors, size of work, etc., but we would expect that each student will be able to exhibit or screen several pieces.
2. These exhibitions and screenings will be drawn from the work done by each student in the previous spring and fall semesters-and will therefore represent each student's most recent efforts.
3. Each student will write an "artist's statement" to accompany his/her work on exhibit.

At the end of the exhibition, the graduate students will hold a formal "closing". All graduate students are expected to attend.

**Mid-Program Review Requirements**

The preliminary examination for the M.F.A. degree at the University of Texas Arlington is the Mid-Program Review.

When the student has completed one-half of her/his program of study, the supervisory committee will conduct a comprehensive review of the student's work in order to ascertain if satisfactory progress is being made toward completion of the degree. The student will present all visual work done to this point, along with an outline and preliminary draft of the written document which is part of the thesis requirement (see below).

To pass, the student must receive a unanimous vote of the committee members. A failed review may be retaken once with permission from the Director of the MFA program and the MFA Graduate Studies Committee. If the student still does not pass, the Director of the MFA program will report the failure and the termination of the student's enrollment in the M.F.A. program to the Graduate School.

### **M.F.A. Thesis Requirements**

The thesis requirement for the M.F.A. degree consists of the following:

- The Thesis Exhibition: A substantial body of original works of art to be exhibited or screened on campus at a time announced to all graduate faculty.
- A written document in which the candidate demonstrates proficiency in conducting research and in analyzing, interpreting and organizing material, as well as demonstrating the ability to communicate perceptions, insights, and conclusions.
- During the last semester of the MFA candidates study a final oral examination coordinated by the supervising committee will be completed.
- Satisfactory completion of the visual and written portions of the thesis and the final oral examination is required for the awarding of the M.F.A. degree.

Specific requirements for the written document are found in Guidelines for the M.F.A.

### **M.A. in Humanities with Art History Concentration (See Program in Humanities for additional requirements)**

The graduate course offerings in art history are provided to support other graduate degree programs, for example, an art history concentration in Humanities, and to meet the express needs of students. No program leading to a graduate degree in art or art history exists at this time.

## **ART Courses**

### **ART5000 – SUPERVISED TEACHINGSTUDIO ART**

1 Lecture Hour · 0 Lab Hours

Training in teaching methods and procedures for studio art classes, including weekly group meetings with the instructor and individual consultations. Prerequisite: graduate standing in studio art, or graduate standing and appointment as a teaching assistant. May be repeated.

### **ART5320 – ART CRITICISM & THEORY**

3 Lecture Hours · 0 Lab Hours

A discussion of placing art within the context of the history of ideas.

### **ART5330 – CRITICAL PERSPECTIVE IN THE VISUAL ARTS & VISUAL COMMUNICATION**

3 Lecture Hours · 0 Lab Hours

Seminar course that focuses on graduate student interaction with visiting artists, scholars, curators, critic, designers, and filmmakers.

### **ART5340 – RESEARCH IN INTERMEDIA**



**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5341 – RESEARCH IN SCULPTURE**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5342 – RESEARCH IN GLASS**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5343 – RESEARCH IN PRINTMAKING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5347 – RESEARCH IN DRAWING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5353 – RESEARCH IN METALS**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of the instructor and the graduate advisor.

### **ART5355 – RESEARCH IN VISUAL COMMUNICATION**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5359 – RESEARCH IN PHOTOGRAPHY DIGITAL IMAGING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5360 – TOPICS IN THE HISTORY OF ART & DESIGN**

**3** Lecture Hours · **0** Lab Hours

Special seminar/topics course focusing on enhancing the art and design knowledge base of MFA candidates in the areas of film/video, visual communication, intermedia-expanded studio, and glass as art.

### **ART5363 – RESEARCH IN CLAY**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5371 – RESEARCH IN PAINTING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5383 – RESEARCH IN FILM/VIDEO & SCREENWRITING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5391 – INDEPENDENT STUDY**

**2** Lecture Hours · **4** Lab Hours

Independent and directed research in the area of Studio Intermedia. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5392 – INDEPENDENT STUDY IN VISUAL COMMUNICATION**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the study of Visual Communication.

### **ART5393 – INDEPENDENT AND DIRECTED RESEARCH IN FILM AND VIDEO**

**2** Lecture Hours · **4** Lab Hours

Independent and directed research in Film and Video.

### **ART5394 – INDEPENDENT STUDY IN GLASS**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the study of glass.

### **ART5395 – INDEPENDENT STUDY IN ART HISTORY AND CRITICISM**

**2** Lecture Hours · **4** Lab Hours

Independent and directed research in art history and criticism.

### **ART5396 – SPECIAL TOPICS IN ART HISTORY**

**3** Lecture Hours · **0** Lab Hours

Subjects of immediate interest in various fields of art history; to compliment faculty research specializations. May be repeated for credit as course content changes. Permission of the instructor required.

### **ART5397 – MASTER OF FINE ARTS EXHIBITION**

**1** Lecture Hour · **5** Lab Hours

This course is intended to be the final course in the Master of Fine Arts (M.F.A.) students program of study. Here, students will concentrate their studio activity towards the completion of a body of work to be

exhibited, complete the written component of the degree as well as oral examinations. Students must have 30 hours of coursework in the concentration completed in their program of study prior to enrolling for this course.

### **ART5640 – RESEARCH IN INTERMEDIA**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5641 – RESEARCH IN SCULPTURE**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5642 – RESEARCH IN GLASS**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5643 – RESEARCH IN PRINTMAKING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5647 – RESEARCH IN DRAWING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5653 – RESEARCH IN METALS**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5655 – RESEARCH IN VISUAL COMMUNICATION**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5659 – RESEARCH IN PHOTOGRAPHY DIGITAL IMAGING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5663 – RESEARCH IN CLAY**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5671 – RESEARCH IN PAINTING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5683 – RESEARCH IN FILM/VIDEO & SCREENWRITING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5697 – MASTER OF FINE ARTS EXHIBITION**

**2** Lecture Hours · **10** Lab Hours

This course is intended to be the final course in the Master of Fine Arts (M.F.A.) student's program of study. Here, students will concentrate their studio activity towards the completion a body of work to be exhibited, complete the written component of the degree as well as oral examinations. Students must have 30 hours of coursework in the concentration completed in their program of study prior to enrolling for this course.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Communication

College of Liberal Arts

### Chair Charla Markham Shaw

Web [www.uta.edu/communication/](http://www.uta.edu/communication/)

Email [comm@uta.edu](mailto:comm@uta.edu)

Phone 817.272.2163

[118 Fine Arts](#)

---

### Degrees / Certificates

#### Master's Degrees

Communications, M.A.

---

### Graduate Faculty

#### Associate Professor

[Thomas Christie](#)

[Andrew Clark](#)

[Tom Ingram](#)

[Chyng-Yang Jang](#)

[Charla Markham Shaw](#)

[Eronini Megwa](#)

#### Assistant Professor

[Karishma Chatterjee](#)

[Dustin Harp](#)

[Erika Pribanic-Smith](#)

[Chunke Su](#)

[Mark Tremayne](#)

[Shelley Wigley](#)

#### Senior Lecturer

[Brian Horton](#)

---

### Graduate Advisors

[Thomas Christie](#)

*Communications, M.A.*

---

### Department Information

### Courses

## Department Information

### Objective

#### Admission Standards

- **Graduate Admission Standards**
- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Status**
- **Denial of Admission**
- **Fellowship Criteria**

#### Degree Requirements

### Objective

The Master of Arts in Communication program includes the areas of Communication Studies and Mass Communication. It is designed to meet the educational needs of recent graduates and professionals.

The program's curriculum emphasizes the integrated nature of the communication discipline. For example, the program offers education in the management of media resources, the changing role of media and technology in an information society, and a theoretical and ethical framework for considering the impact of media on society.

Educational and organizational professionals can focus on working with both external and internal constituencies and communication processes of management, training and development, and human resources. A broader knowledge of communication processes at the interpersonal, organizational, and mass media levels provides the opportunity for career enhancement and/or further graduate studies.

### Admission Standards

Prospective students must apply for admission through, and supply all information required by the Graduate School. In addition, the following information will be considered in determining admission status into the program: undergraduate GPA, GRE scores, letters of recommendation and an essay. All criteria are considered together; no single factor will eliminate a prospective student from consideration.

The following table outlines specific requirements for unconditional and probationary admission.

Graduate Admission Standards			
Admission Criteria	Unconditional	Probationary	
GPA on last 60 hours of Undergraduate Program (as calculated by Graduate School of UT Arlington)	3.3	3.0 <sup>[1]</sup>	2.8-2.99
GRE	Evaluated	Evaluated	Evaluated
3 letters of recommendation	Evaluated	Evaluated	Evaluated
Essay	Evaluated	Evaluated	Evaluated

## Administration

[1] Minimum undergraduate GPA requirement for unconditional admission is a 3.0 on a 4.0 scale.

Students not meeting unconditional criteria will be reviewed by a committee of Chair of the Department of Communication, Graduate Advisor, and Graduate Program Committee. The committee will review the following: a minimum undergraduate GPA of 2.8 (in last 60 hours of undergraduate work); GRE scores (verbal, analytical and quantitative); letters of recommendation; and essay. An applicant who performs successfully on a majority of these criteria may be admitted on probation. The committee will make a final admission decision and document that decision for the student record.

## Unconditional Admission

Criteria for unconditional admission status are designated in the previous table. Decisions on unconditional admission are made after considering the minimum GPA noted in the graduate admission standards and all other criteria noted in the preceding paragraph.

## Probationary Admission

Criteria for probationary admission status are designated in the previous table. When on probation, students can make no grade lower than a 3.0 in their first 12 semester hours of graduate coursework.

## Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

## Deferred Status

Deferred decision is granted when a file is incomplete or when a denied decision is not appropriate.

## Denial of Admission

An applicant will be denied admission if he or she has less than satisfactory performance on a majority of admission criteria listed in the previous table.

## Fellowship Criteria

Fellowship selection will be based on the highest GPA in the last 60 hours of the bachelor's degree program. Candidates for fellowships must meet the following criteria:

1. New students coming to UT Arlington in the fall of each semester.
2. Have a GPA of at least 3.0 in their last 60 hours of their bachelor's degree program.
3. Minimum 3.0 GPA in graduate credit hours.
4. Enrolled in a minimum of 6 semester hours in the long semesters.

## Degree Requirements

The Master of Arts in Communication degree offers non-thesis/coursework and thesis options. The non-thesis/coursework option will require 36 hours of coursework. The thesis option will require 30 hours that will include 24 credit hours of coursework and a 6-credit-hour thesis. A final comprehensive examination will be required of students in all options.

### Courses required of all students in the program in the first semester:

COMM 5300	Advanced Theories in Communication	3
COMM 5305	Communication Research Methods	3

Total

6

**Course required of all students in the program in the second semester:**

COMM 5306 Qualitative Research Methods\* 3

\*An advanced quantitative research methods course from another department may be substituted for this course with the permission of the communication graduate advisor

**Courses students may elect to take:**

*Thesis Option:* Select at least 6 hours from the following communication electives.

*Non-Thesis/coursework Option:* Select at least 18 hours from the following communication electives.

COMM 5310	Theories in Persuasion
COMM 5316	Corporate Communication Strategies
COMM 5320	Advanced Visual Communication
COMM 5321	Advanced Internet Marketing Communication
COMM 5323	Computer-Mediated Communication
COMM 5332	Advanced Professional Communication
COMM 5335	Global Communication
COMM 5341	Media Management
COMM 5345	Communication Campaigns
COMM 5346	Media and Public Policy
COMM 5347	Crisis Communication
COMM 5392	Seminar

Graduate courses outside the department may be taken with the approval of the Graduate Studies Committee. Students should submit a letter to the graduate advisor including course title, course description, and statement of value to the program of study.

*Non-Thesis Option.* (36 semester hours total) 36 semester credit hours of coursework are given. The final comprehensive examination will consist of an oral exam covering the coursework. Additional remedial work may be required if deemed necessary by the student's committee. Students failing the examination will not be allowed to test again.

*Thesis Option.* (30 semester hours total) 24 semester credit hours of coursework and a thesis, for which 6 semester hours are given. The final comprehensive examination will consist of an oral defense of the thesis prospectus and an oral defense of the thesis. Additional remedial work may be required if deemed necessary by the student's committee.

**COMM Courses****COMM5300 – ADVANCED THEORIES IN COMMUNICATION**

3 Lecture Hours · 0 Lab Hours

Advanced study of communication theories: interpersonal, organizational, mass media and intercultural.

**COMM5301 – SUPERVISED TEACHING**

0 Lecture Hours · 3 Lab Hours

Application of theory to the practices of teaching college courses in communication. Students will handle all aspects of the classroom including lecturing, conducting class discussions, issuing assignments, grading and assigning grades under the supervision of the course director. No unit credit will be allowed toward



advanced degree.

### **COMM5305 – COMMUNICATION RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Study and application of communication research, design and methodology. Students will apply statistics in communication research and complete a research project/paper.

### **COMM5306 – QUALITATIVE RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Advanced study and application of qualitative communication research, design and methodology.  
Prerequisite: COMM 5300 and COMM 5305.

### **COMM5310 – THEORIES IN PERSUASION**

**3** Lecture Hours · **0** Lab Hours

A comparison of traditional with contemporary behavioral science theories of persuasive discourse and their supporting research.

### **COMM5316 – CORPORATION COMMUNICATION STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

Examines organizational communication strategies with special emphasis on how communication affects corporate constituencies. Corporate image and identity are linked to corporate advertising, press releases, financial communication, internal communication and crisis communication

### **COMM5320 – ADVANCED VISUAL COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Theory of visual communication in technical communication. Practice includes conceptualization, development and production

### **COMM5321 – ADVANCED INTERNET MARKETING COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Study of the use of information technology to optimize advertising, promotion, public relations and sales functions. Examines an infrastructure of the Internet and how it affects information retrieval, Web design, Web site management and Web site security. Discusses research strategies, usage trends and social implications

### **COMM5323 – COMPUTER-MEDIATED COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Study of theoretical and practical issues associated with modern communication technology and computer-mediated communication in interpersonal and organizational communication contexts.

### **COMM5332 – ADVANCED PROFESSIONAL COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Advanced study of the theory and practice in written and oral presentations with emphasis on the application of communication theory in organizational and technical professions. Development of strategic communication plans to influence audience perceptions and evaluate changes.

### **COMM5335 – GLOBAL COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Examination of verbal and nonverbal barriers to effective intercultural and international communication. Developing effective communication in advanced study of communication theories: interpersonal, organizational, mass media and intercultural contexts and exploring the definition and impact of global

communication.

### **COMM5341 – MEDIA MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Study of media policy and regulation; media, cultural, and management theories; media economics; accounting and finance; business strategy, management and marketing

### **COMM5345 – COMMUNICATION CAMPAIGNS**

**3** Lecture Hours · **0** Lab Hours

Advanced study of communication theories and research with the goal of developing strategic communication plans, including the selection of the appropriate vehicles and creative tactics. Team project required

### **COMM5346 – MEDIA AND PUBLIC POLICY**

**3** Lecture Hours · **0** Lab Hours

Advanced study of communication theories and research related to understanding the linkage between media, public opinion and public policy. Individual and/or team project required.

### **COMM5347 – CRISIS COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Advanced study of communication theories related to crisis communication and strategies used to communicate with stakeholders before, during and after crisis situations.

### **COMM5391 – CONFERENCE COURSE**

**3** Lecture Hours · **0** Lab Hours

Topic assigned on an individual basis, covering individual research or study in the designated areas. Can be taken no more than two times for credit. Prerequisite: permission of the department.

### **COMM5392 – SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Special topics. Topic varies from semester to semester. May be repeated when topic changes.

### **COMM5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Student completion of a research project on a subject of primarily theoretical interest, intended for an academic audience. Prerequisite: satisfactory completion of coursework and consent of thesis advisor.

### **COMM5399 – GRADUATE COMMUNICATION INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training and experience in the field of communication. Applied communication research project is required. Course counts as an elective and has a pass/fail grade. No credit will be given for current employment, previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed. Subject to departmental approval.

### **COMM5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Student completion of a research study on a subject of primarily theoretical interest, intended for an academic audience. Prerequisite: satisfactory completion of thesis proposal defense and consent of thesis advisor.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Criminology & Criminal Justice

College of Liberal Arts

### Chair Alejandro Del Carmen

Web [www.uta.edu/criminology/](http://www.uta.edu/criminology/)

Phone 817.272.3318

Fax 817.272.5673

362 University Hall

---

### Degrees / Certificates

#### Master's Degrees

Criminal Justice Masters Cohort

Criminology and Criminal Justice, M.A.

---

### Graduate Faculty

#### Professor

[Alejandro Del Carmen](#)

#### Associate Professor

[Robert Bing](#)

#### Assistant Professor

[Jaya Davis](#)

[Seokjin Jeong](#)

[Tony Love](#)

[John Rodriguez](#)

#### Visiting Assistant Professor

[Christopher Copeland](#)

#### Senior Lecturer

[Randall Butler](#)

[Karel Carpenter](#)

[Rhonda Dobbs](#)

[Patricia Eddings](#)

[Kristy Smith](#)

[Royce West](#)

---

### Graduate Advisors

#### [Rhonda Dobbs](#)

*Criminology and Criminal Justice, M.A.*

#### [John Rodriguez](#)

*Criminology and Criminal Justice, M.A.*

---

## Department Information

### Courses

# Department Information

## Criminology and Criminal Justice, M.A. (Arlington Campus)

### Objectives

#### Admission and Degree Requirements

- **Unconditional Admission**
- **Probationary Admission**
- **Deferred Admission**
- **Provisional Admission**
- **Denial**
- **Fellowships**

#### Dual Degree Program

## Criminology and Criminal Justice Cohort Program, M.A. Degree (Ft. Worth Campus)

### Objectives

#### Admission and Degree Requirements

- **Unconditional Admission**
- **Probationary Admission**
- **Deferred Admission**
- **Provisional Admission**
- **Denial**

#### Course Sequence

### Objectives

The program leading to the MA degree in criminology and criminal justice offers a comprehensive examination of the criminal justice system, an exploration of criminal and delinquent behaviors, a foundation in research and statistics, and an opportunity to explore other relevant topics of interest to the student.

It is designed for:

1. Pre-professional students who wish to pursue a career in some aspect of criminal justice, or in a related field, and to develop the perspectives and knowledge appropriate to doing so;
2. In-service professionals who wish to enhance and broaden their knowledge in this and related areas of study;
3. Students pre-professional or in-service who wish to pursue further relevant post-graduate studies, whether academic or professional.

To meet these objectives, and to develop a broadly educated student, the program offers both thesis and non-thesis options.

The coursework (non-thesis) option is generally recommended for students who do not intend to pursue doctoral-level studies. It does not require applicants to have prior criminal justice employment and is designed to provide a base of knowledge and skills necessary to enter and/or administer criminal justice related programs.

The non-thesis option requires students to pass a comprehensive examination that covers three areas: criminological theory, research methods & statistics, and an area of specialization that will depend on the student's selected area (law enforcement, courts, or corrections). Students must declare their area by the second semester and must complete 27 hours (including core classes) in order to attempt the examination. Students must be enrolled in the semester in which they take the comprehensive examination.

The examination takes place over a two-day period, with knowledge of research methods and theory tested on the first day and knowledge the specialization area assessed on the second. The comprehensive examination is scheduled once each long semester, once in late October and again in late March.

Students have two opportunities to pass the comprehensive examination. Failure on the second attempt will result in dismissal from the program. If a student first attempts the examination in the Spring Term and fails it, he or she may request to retake it during the summer terms. However, the Examining Committee shall decide whether or not to allow this.

The thesis option is generally recommended for students wishing to pursue further education in professional schools or doctoral level studies. It is designed to prepare students to conduct research in criminology and criminal justice and actively participate in the development of knowledge. Students choosing the thesis option are required to take a six-hour thesis course during the semester in which the thesis is defended. Non-thesis students take two additional courses constituting six credit hours. Students are required to defend their thesis proposal at least one semester prior to defending their final thesis and before submission of materials to IRB.

With the approval of the Graduate Advisor, students may also use their elective hours to concentrate on a particular field of study, such as sociology, political science, corrections, policing, or a multidisciplinary approach to a particular focus, such as administration-or research. Thesis students take 15 hours of elective courses and non-thesis students take 21 hours.

## Admission and Degree Requirements

The MA degree in criminology and criminal justice requires a minimum of 36 semester hours, regardless of the option selected, and includes 15 semester hours of required core coursework.

1. **Core:** CRCJ 5301, CRCJ 5309, CRCJ 5310, CRCJ 5327, and CRCJ 5350. One of the following may be taken in lieu of CRCJ 5309 with the approval of the Graduate Advisor: SOCI 5303, SOCW 5322 or URPA 5302. In lieu of CRCJ 5310, one of the following may be taken: SOCI 5304 or URPA 5342, with the approval of the Graduate Advisor.
2. **Electives:** The number of semester hours available for electives ranges from a minimum of 15 to 21, depending on the option selected (thesis or non-thesis). Ordinarily, elective hours are taken in areas of particular interest to the student, with the advice and approval of the Graduate Advisor.

All candidates for the graduate degree must pass a final comprehensive examination, written, oral, or both written and oral. The scope, content, and form of this examination will be determined by the student's supervising committee.

The criminology and criminal justice graduate program adheres to the following admission criteria.

### Unconditional Admission

In addition to having satisfied the requirements set forth by the UT Arlington Graduate School, as

outlined in the graduate catalog, applicants seeking unconditional admission to the CRCJ graduate program are required to meet the following four criteria:

1. Must have successfully completed a baccalaureate degree in criminology/criminal justice or related discipline.
2. A minimum GPA of 3.0 in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. A minimum of 149 on both verbal and quantitative subtests of the GRE (minimum of 440 on both verbal and quantitative subsets under old scoring system). The GRE is not required of an applicant who satisfies all of the following requirements:
  - Has three or more years of professional experience with increasing responsibility in a criminal justice (or closely related) occupation and provides a detailed work history documenting this experience.
  - Submits an acceptable sample of professional writing authored solely by the applicant. This will be evaluated to assess writing and analytical skills.
  - Successfully completes a personal interview with the graduate advisor, where credentials, goals and objectives of graduate studies, and views related to the study and profession of Criminology/Criminal Justice will be discussed.
4. Must submit three letters of recommendation addressing the applicant's potential for success in the graduate program from persons knowledgeable of the applicant's abilities.

Applicants meeting all four of the criteria will be granted unconditional admission into the CRCJ Graduate Program. Applicants who lack one of the above criteria may be considered for probationary admission.

### **Probationary Admission**

Applicants who fail to meet the four criteria for unconditional admission may be considered for probationary admission. Applicants who fail to meet the GPA or GRE requirements for unconditional admission may be granted probationary admission if any of the following three conditions is met: (1) the GPA falls between 2.5 and 3.0 and the remainder of the application package is satisfactory; (2) the GPA falls between 2.25 and 2.49, the remainder of the application package is satisfactory, and the applicant has five years of professional experience in a criminal justice (or closely related) occupation and a detailed work history documenting this experience; or (3) the GPA fall between 2.00 and 2.24, the remainder of the application package is satisfactory, and the applicant has 10 or more years of professional experience in a managerial or administrative position within a criminal justice (or closely related) occupation and a detailed work history documenting that experience. In addition to providing a work history, applicants using their work history for admission must also provide a writing sample and complete a personal interview. Applicants admitted on probation will remain in that status until completing 12 hours of graduate coursework with no grade lower than a B.

### **Deferred Admission**

In the event an applicant does not meet the minimum criteria established for unconditional or probationary admission, yet nonetheless is judged by the graduate advisor, in consultation with the CRCJ Graduate Studies Committee, to show promise, the admission decision may be deferred, with instructions provided to the student indicating the course of action to be taken prior to subsequent review. Admission decisions may also be deferred if the application package is incomplete.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Denial**

Applicants who do not satisfy all of the criteria for any of the above categories will be denied

admission.

## Fellowships

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Graduate School Master's Fellowship in the criminology/criminal justice graduate program will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.
- The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in criminology/criminal justice (or appropriate related field) from an accredited institution.
- Three letters of recommendation (may use the same letters submitted for consideration into the criminology/criminal justice graduate program).
- A written statement explaining the applicant's reasons for graduate study in criminology/criminal justice.

## Dual Degree Program

Students in criminology and criminal justice may participate in one of three dual degree programs whereby they can earn a Master of Arts in Criminology and Criminal Justice and 1) a Master of Science in Social Work, 2) a Master of Arts in Political Science, or 3) a Master of Public Administration. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs.

To participate in the dual degree program, students must be admitted to each program and must submit a separate Program of Work for each degree. Those interested in a dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement on Dual Degree Programs in the general information section of this catalog.

## Objectives

The cohort program leading to the M.A. degree in criminology and criminal justice offers a comprehensive examination of the criminal justice system, an exploration of criminal and delinquent behaviors, a foundation in research and statistics, and an opportunity to explore other relevant topics of interest to the student.

It is designed for:

1. Professionals who wish to enhance and broaden their knowledge in this and related areas of study;
2. Students pre-professional or in-service who wish to pursue further relevant post-graduate studies, whether academic or professional.

To meet these objectives, and to develop a broadly educated student, the program offers a non-thesis option.

The coursework (non-thesis) option is generally recommended for professionals who do not intend to pursue doctoral-level studies. It is designed for individuals who are interested in completing their M.A. degree in criminology and criminal justice in a period of 24 months from the first day of class.

## Admission and Degree Requirements

The M.A. degree in criminology and criminal justice requires 36 semester hours and includes 15



semester hours of required core coursework.

1. **Core:** CRCJ 5301, CRCJ 5309, CRCJ 5310, CRCJ 5327, and CRCJ 5350.
2. **Electives:** The number of semester hours available for electives is 21 total. The emphasis of the elective courses will be placed on organizational management and related areas of concentration.

The criminology and criminal justice graduate program adheres to the following admission criteria.

### Unconditional Admission

In addition to having satisfied the requirements set forth by the UT Arlington Graduate School, as outlined in the Graduate Catalog, applicants seeking unconditional admission to the CRCJ program are required to meet the following four criteria:

1. A baccalaureate degree in criminology/criminal justice or related discipline. Applicants with baccalaureate degrees in other disciplines may be considered for probationary admission).
2. A minimum GPA of 3.0 in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. A minimum of 149 on the verbal and a minimum of 149 on the quantitative subtests of the GRE (minimum of 440 on verbal and 440 on quantitative under the old scoring method). The GRE is not required of an Applicant who satisfies all of the following requirements:
  - Has three or more years of professional experience with increasing responsibility in managerial or administrative positions in a criminal justice (or closely related occupation) occupation and provide a detailed work history documenting this experience.
  - Submits an acceptable sample of professional writing authored solely by the applicant. This will be evaluated to assess writing and analytic skills.
  - Successfully completes a personal interview with the advisor, where credentials, goals and objectives of graduate studies, and views related to the study and profession of Criminology/Criminal Justice will be discussed.
4. Three letters of recommendation, submitted to the program advisor, addressing the applicant's potential for success in the graduate program from persons knowledgeable of the applicant's abilities.

Applicants meeting criteria 1-4 will be considered for unconditional admission into the CRCJ Graduate Program. Applicants who do not meet one of these four criteria may be considered for probationary admission.

### Probationary Admission

Applicants who fail to meet the four criteria for unconditional admission may be considered for probationary admission. Applicants who fail to meet the GPA or GRE requirements for unconditional admission may be granted probationary admission if any of the following three conditions is met: (1) the GPA falls between 2.5 and 3.0 and the remainder of the application package is satisfactory; (2) the GPA falls between 2.25 and 2.49, the remainder of the application package is satisfactory, and the applicant has five years of professional experience in a criminal justice (or closely related) occupation and a detailed work history documenting this experience; or (3) the GPA fall between 2.00 and 2.24, the remainder of the application package is satisfactory, and the applicant has 10 or more years of professional experience in a managerial or administrative position within a criminal justice (or closely related) occupation and a detailed work history documenting that experience. In addition to providing a work history, applicants using work experience for admission must also submit a writing sample and complete a personal interview. Applicants admitted on probation will remain in that status until completing 12 hours of graduate coursework with no grade lower than a B.

### Deferred Admission

In the event an applicant does not meet the minimum criteria established for unconditional or

probationary admission, yet nonetheless is judged by the graduate advisor, in consultation with the CRCJ Graduate Studies Committee, to show promise, the admission decision may be deferred, with instructions provided to the student indicating the course of action to be taken prior to subsequent review. Admission decisions may also be deferred if the application package is incomplete.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Denial**

Applicants who do not satisfy all of the criteria for any of the above categories will be denied admission.

## **Course Sequence**

### **Fall Semester**

5350 - Theoretical Criminology\*

5301 - Proseminar in Criminology and Criminal Justice\*

### **Spring Semester**

5318 - Criminal Justice Personnel Administration

5319 - Issues in Policing

### **Summer Semester**

5351 - Terrorism and Crime

5353 - Criminal Justice Organizational Theory and Management

### **Fall Semester**

5327 - Judicial and Constitutional Processes\*

5342 - Ethics in Criminal Justice

### **Spring Semester**

5381 - Crime and Public Policy

5380 - Criminal Justice Seminar

### **Summer Semester**

5309 - Research Methods in Criminal Justice\*

5310 - Statistics and Research Practices in Criminal Justice\*

\*Depicts a core course

CRCJ5350 - THEORETICAL CRIMINOLOGY (3 - 0)

Explores the etiology of crime, theory development and crime causation. Emphasis is on theoretical perspectives and policy implementation.

CJ5301 - PROSEMINAR IN CRIMINOLOGY AND CRIMINAL JUSTICE (3 - 0)

An exploration of classical and contemporary literature in criminology and criminal justice. Theoretical perspectives and empirical research will be used to examine criminal behavior and the

structure, function, operation, and interaction of the criminal justice system components as well as current practices and future trends in criminology and criminal justice.

**CRCJ5318 - CRIMINAL JUSTICE PERSONNEL ADMINISTRATION (3 - 0)**

Personnel administration and management in criminal justice agencies and institutions; analyzes functions of recruitment, selection, hiring, placement, evaluation, dismissal, benefits systems, minority recruitment, training, education, promotion, career development, and retirement.

**CRCJ5319 - Issues in Policing (3 - 0)**

In-depth analysis of historical, current, and future issues in policing and police administration. Emphasis will be placed on the role of police in society, police-citizen relationships, and empirical evaluations of police effectiveness, police behavior, and programs and strategies.

**CRCJ5351 - TERRORISM AND CRIME (3 - 0)**

This course examines the origins, nature, and operational characteristics of terrorist groups. Students are exposed to topics ranging from the definition of "terrorism" to the unique characteristics of terrorist cells in the United States and abroad. Particular emphasis is on historical and contemporary terrorist attacks against the United States.

**CRCJ5353 - CRIMINAL JUSTICE ORGANIZATIONAL THEORY & MANAGEMENT THOUGHT (3 - 0)**

An examination of organizational theory with specific application to the operation and management of criminal justice agencies. The historical precedents and emergence of contemporary perspectives are presented with their implication for effective functioning of the criminal justice system.

**CRCJ5327 - JUDICIAL AND CONSTITUTIONAL PROCESSES (3 - 0)**

Examination of the structure, functions, and operations of the courts, with special attention to contemporary constitutional issues and their impact on the criminal justice process.

**CRCJ5342 - ETHICS IN CRIMINAL JUSTICE (3 - 0)**

This course focuses on the ethical decisions and dilemmas encountered in the criminal justice system. Topics covered include criteria for ethical decision-making, professional codes of ethics, and ethical and legal dilemmas faced by criminal justice professionals.

**CRCJ5381 - CRIME & PUBLIC POLICY (3 - 0)**

This course addresses crime and criminal justice policy. Emphasis is on the examination of media and political forces that shape criminal justice responses and policy initiatives. In the context of theoretical paradigms, the impact of race, class, economics, and gender on development of criminal justice public policy is examined.

**CRCJ5380 - CRIMINAL JUSTICE SEMINAR (3 - 0)**

Synthesis course for advanced graduate students. Special emphasis on examination of constructs of crime/criminals, justice and systems. Requires individual research in area of particular concern to student.

**CRCJ5309 - RESEARCH METHODS IN CRIMINAL JUSTICE (3 - 0)**

Examination of research methodology in criminal justice. Special emphasis on methods and techniques for conducting research in criminal justice, including a review of problems encountered in sampling and survey research, field research, public policy implementation, and program evaluation.

**CRCJ5310 - STATISTICS & RESEARCH PRACTICES IN CRIMINAL JUSTICE (3 - 0)**

Advanced methods and techniques of research and research design in criminology and criminal

justice. Course will cover pure and applied research and expose students to contemporary methodological and analytical issues. Students will be instructed on the use of existing CRCJ databases as well as the collection of new data and particular aspects of SPSS (Statistical Package for the Social Sciences software) and advanced data analysis.

## **CRCJ Courses**

### **CRCJ5196 – CONFERENCE COURSE CRJU**

1 Lecture Hour · 0 Lab Hours

### **CRCJ5301 – PROSEMINAR IN CRIMINOLOGY AND CRIMINAL JUSTICE**

3 Lecture Hours · 0 Lab Hours

An exploration of classical and contemporary literature in criminology and criminal justice. Theoretical perspectives and empirical research will be used to examine criminal behavior and the structure, function, operation, and interaction of the criminal justice system components as well as current practices and future trends in criminology and criminal justice.

### **CRCJ5309 – RESEARCH METHODS IN CRIMINAL JUSTICE**

3 Lecture Hours · 0 Lab Hours

Examination of research methodology in criminal justice. Special emphasis on methods and techniques for conducting research in criminal justice, including a review of problems encountered in sampling and survey research, field research, public policy implementation, and program evaluation.

### **CRCJ5310 – STATISTICS & RESEARCH PRACTICES IN CRIMINAL JUSTICE**

3 Lecture Hours · 0 Lab Hours

Advanced methods and techniques of research and research design in criminology and criminal justice. Course will cover pure and applied research and expose students to contemporary methodological and analytical issues. Students will be instructed on the use of existing CRCJ databases as well as the collection of new data and particular aspects of SPSS (Statistical Package for the Social Sciences software) and advanced data analysis. Prerequisite: CRCJ 5309 or equivalent.

### **CRCJ5318 – CRIMINAL JUSTICE PERSONNEL ADMINISTRATION**

3 Lecture Hours · 0 Lab Hours

Personnel administration and management in criminal justice agencies and institutions; analyzes functions of recruitment, selection, hiring, placement, evaluation, dismissal, benefits systems, minority recruitment, training, education, promotion, career development, and retirement.

### **CRCJ5319 – ISSUES IN POLICING**

3 Lecture Hours · 0 Lab Hours

In-depth analysis of historical, current, and future issues in policing and police administration. Emphasis will be placed on the role of police in society, police-citizen relationships, and empirical evaluations of police effectiveness, police behavior, and programs and strategies.

### **CRCJ5327 – JUDICIAL AND CONSTITUTIONAL PROCESSES**

3 Lecture Hours · 0 Lab Hours

Examination of the structure, functions, and operations of the courts, with special attention to contemporary constitutional issues and their impact on the criminal justice process.

### **CRCJ5332 – CORRECTIONAL THEORY AND PRACTICE**

3 Lecture Hours · 0 Lab Hours

Examination of social, psychological, political, and historical bases of interventions in the control and disposition of offenders. Emphasis on contemporary policies, practices, and problems in institutional, semi-institutional, and community-based corrections.

### **CRCJ5342 – ETHICS IN CRIMINAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

This course focuses on the ethical decisions and dilemmas encountered in the criminal justice system. Topics covered include criteria for ethical decision making, professional codes of ethics, and ethical and legal dilemmas faced by criminal justice professionals.

### **CRCJ5350 – THEORETICAL CRIMINOLOGY**

**3** Lecture Hours · **0** Lab Hours

Explores the etiology of crime, theory development and crime causation. Emphasis is on theoretical perspectives and policy implementation.

### **CRCJ5351 – TERRORISM AND CRIME**

**3** Lecture Hours · **0** Lab Hours

This course examines the origins, nature, and operational characteristics of terrorist groups. Students are exposed to topics ranging from the definition of "terrorism" to the unique characteristics of terrorist cells in the United States and abroad. Particular emphasis is on historical and contemporary terrorist attacks against the United States.

### **CRCJ5352 – WOMEN, CRIME & CRIMINAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

A summary of issues related to women as criminal offenders, victims of crime, and professionals in the criminal justice system. The course focuses on crimes women are most likely to commit and/or be processed through the criminal justice system for, the punishment of female offenders, the types of victimizations most often experienced by women, and employment issues unique to women employed in the criminal justice system. While the main emphasis of the course will be on the experiences of women in the U.S., attention will also be given to women on a global scale.

### **CRCJ5353 – CRIMINAL JUSTICE ORGANIZATIONAL THEORY & MANAGEMENT THOUGHT**

**3** Lecture Hours · **0** Lab Hours

An examination of organizational theory with specific application to the operation and management of criminal justice agencies. The historical precedents and emergence of contemporary perspectives are presented with their implication for effective functioning of the criminal justice system.

### **CRCJ5360 – RACE, CRIME JUSTICE & THE LAW**

**3** Lecture Hours · **0** Lab Hours

This course explores the role of race and ethnicity within the juvenile and criminal justice system. Emphasis is on the social construction of crime, racial and ethnic inequalities, the law and policies/practices that impact blacks and other racial minorities.

### **CRCJ5364 – CRIME AND THE MEDIA**

**3** Lecture Hours · **0** Lab Hours

Utilizing a social constructionist perspective, the course examines the mass media's role in engendering and cultivating American society's perception of crime. This course examines factors influencing the social reality of crime, and attempts to deconstruct perceptions of crime-related mass media events.

### **CRCJ5366 – JUVENILE DELINQUENCY AND JUVENILE CORRECTIONS**

**3** Lecture Hours · **0** Lab Hours

Correctional modes are discussed and applied to juvenile offenders. Theoretic approaches to causation,

modification, and control of delinquent behaviors are presented, and policy implications and limitations are discussed. Historical and contemporary perspectives and approaches are presented in the context of evolving and emerging practices and procedures.

### **CRCJ5370 – PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Professional or pre-professional experience in a criminal justice related agency or institution with the approval and direction of the student's supervising professor; intended for non-thesis option students who do not have professional experience related to criminal justice.

### **CRCJ5380 – CRIMINAL JUSTICE SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Synthesis course for advanced graduate students. Special emphasis on examination of constructs of crime/criminals, justice and systems. Requires individual research in area of particular concern to student.

### **CRCJ5381 – CRIME & PUBLIC POLICY**

**3** Lecture Hours · **0** Lab Hours

This course addresses crime and criminal justice policy. Emphasis is on the examination of media and political forces that shape criminal justice responses and policy initiatives. In the context of theoretical paradigms, the impact of race, class, economics, and gender on development of criminal justice public policy is examined.

### **CRCJ5382 – COMPREHENSIVE ISSUES IN CRIME AND JUSTICE**

**3** Lecture Hours · **0** Lab Hours

An advanced course covering a broad array of issues related to criminology, crime, and the justice system. This course is designed to review topics related to the comprehensive examination.

### **CRCJ5393 – TOPICS IN CRIME AND CRIMINOLOGY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as the topic changes.

### **CRCJ5394 – TOPICS IN JUSTICE ISSUES**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as the topic changes.

### **CRCJ5396 – CONFERENCE COURSE IN CRIMINAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

Reading and research in a specialized area of criminal justice under the direction of a member of the graduate faculty.

### **CRCJ5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **CRCJ5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## English

College of Liberal Arts

### Chair Bruce Krajewski

Web [www.uta.edu/english/](http://www.uta.edu/english/)  
Email [tmorris@uta.edu](mailto:tmorris@uta.edu)  
Phone 817.272.2692  
Fax 817.272.2718

203 Carlisle Hall

---

### Degrees / Certificates

**Master's Degrees**  
English, M.A.

**Doctoral Degrees**  
English, Ph.D.

---

### Graduate Faculty

**Bruce Krajewski**

**Professor**  
**Stacy Alaimo**  
**Timothy Morris**  
**Kenneth Roemer**

**Associate Professor**  
**Luanne Frank**  
**Kevin Gustafson**  
**Desiree Henderson**  
**Penelope Ingram**  
**Neill Matheson**  
**Kevin Porter**  
**Timothy Richardson**  
**Johanna Smith**  
**Jacqueline Stodnick**  
**Amy Tigner**

**Assistant Professor**  
**William Arce**  
**James Warren**  
**Yuejiao Zhang**

---

### Graduate Advisors



**Amy Tigner**

*English, M.A.  
English, Non-Degree Seeking  
English, Ph.D.*

---

**Department Information**

**Courses**

## Department Information

**Objectives**

**Doctoral Program of Study**

**Writing Sample and Recommendations**

**Admissions Requirements**

- [Proposed Admissions Changes Effective August 2014 >>](#)
- [Admission Procedures](#)
- [Criteria for Admission: Master's Program](#)
- [Criteria for Admission: Ph.D. Program](#)
- [Deferred Decision](#)
- [Provisional Admission](#)
- [Probationary Admission](#)
- [Denial](#)
- [Deficiency Courses](#)
- [Fellowships](#)
- [Graduate Teaching Assistantships](#)

**Degree Requirements**

- [Master of Arts](#)
- [Doctor of Philosophy](#)

### Objectives

The Department of English offers a wide variety of graduate courses to meet the needs of students with a diversity of interests and academic backgrounds who wish to enhance their awareness of their literary and cultural environment by additional formal instruction or to increase their professional competence.

The Master of Arts program in English is designed to enable students to learn about, critique, and work in teaching, scholarship, writing, or other fields which value a strong background in language, rhetoric, and the study of culture through texts.

Early in the program each student takes one core course. It serves as an introduction to theory as it is currently used in English scholarship.

Each student plans an individual program of coursework, with the help of the Graduate Advisor and the chair of the students' thesis or exam committee. This program draws on the department's varied courses, which offer students ways to study literature, rhetoric, and criticism, as well as methods of studying culture through texts and traditions of discourse.

The M.A. in English provides a strong grounding in scholarly methods and in theory, making it an ideal preparation for doctoral study in disciplinary or interdisciplinary programs. M.A. graduates in English pursue careers in journalism, educational administration and services, publishing, and many business fields that demand writing and communication skills. The M.A. in English is also useful for prospective or experienced teachers who want both to sharpen their ability to teach literature and writing, and to advance professionally.

## Doctoral Program of Study

The doctoral program in English prepares students at the most advanced stage in the interpretation and composition of texts. The program emphasizes rigorous critical study in the fields of rhetoric, composition, critical theory, cultural studies, pedagogy and literary studies. Rather than offering separate tracks, the program allows the student in consultation with the Graduate Advisor and the student's dissertation committees to design a program of work that best suits their particular scholarly interests and career goals. The combination of a diversity of course offerings, required and elected courses, and the requirement that each student define a focus that reflects his or her intellectual and career interests provides students with the flexibility to adapt to changes in English studies. Specifically, the English doctoral program prepares students for careers in writing, including electronic and technical writing, as well as in teaching in community colleges, small colleges or regional state universities. The department trains students for college-level teaching several ways, but most importantly, by offering graduate courses in the teaching of literature and the teaching of composition. Doctoral students in English present papers at scholarly conferences, publish essays in scholarly journals and participate in other professional activities.

## Writing Sample and Recommendations

In addition to the admission requirements set by the Graduate School, the English Department requires all international students to have speaking, reading, and writing competence in English and all applicants to submit to the Graduate Advisor a sample of their best academic writing. Three letters of recommendation should be sent directly to the Graduate Advisor. At least two of the letters of recommendation should be academic in nature.

## Admissions Requirements

### Admission Procedures

For both the M.A. and the Ph.D., we consider four different admission criteria: 1) GPA; 2) GRE; 3) writing sample; and 4) letters of recommendation. Prospective students should submit all the required materials and scores i.e. official transcripts, GRE scores, a writing sample, and recommendation letters in order for their application to be processed. All criteria are considered together, in a holistic way. No single factor will eliminate a prospective student from consideration. For unconditional admission, candidates must meet the following standards for at least three of the four criteria.

### Criteria for Admission: Master's Program

1. A minimum GPA of 3.0 in undergraduate work, with a minimum of 3.4 in the English major or upper-level English courses.
2. GRE scores: a minimum of 500 on the old verbal scale or at least 153 on the new verbal scale and a score of 4.5 on analytic writing. We will not consider the math scores. We do not require the English subject test.
3. A writing sample of 10 to 15 pages that demonstrates a sophisticated prose style and the ability to construct complex arguments.
4. Three letters of recommendation that attest to the prospective student's intellectual and scholarly potential. At least two of these should be from former professors.

## Criteria for Admission: Ph.D. Program

1. A minimum GPA of 3.5 in the student's M.A. in English or a very closely related field. (If the M.A. is not in English, we will consider the undergraduate GPA as well as that of the M.A. Moreover, if the M.A. is not in a very closely related field, the prospective student will be admitted to the M.A. program in English, not the Ph.D.)
2. GRE scores: GRE scores: a minimum of 550 on the old verbal scale or at least 156 on the new verbal scale and a score of 4.5 on analytic writing. We will not consider the math scores. We do not require the English subject test.
3. A writing sample of 15 to 20 pages that demonstrates a sophisticated prose style, the ability to engage in intellectually rigorous modes of analysis, and a strong knowledge of rhetoric, composition studies, literary studies, cultural studies, or interdisciplinary critical theory.
4. Letters of recommendation that attest to the student's intellectual and scholarly potential. At least two of these must be from former professors; at least one must be a professor from the student's Master's program.

## Deferred Decision

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

## Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

## Probationary Admission

For both M.A. and Ph.D., students may be admitted on probation under two different scenarios: 1) if the prospective student's application materials do not meet two of the four standards, but are outstanding in the remaining two categories; or 2) if the prospective student's materials come extremely close to meeting the standards in at least three of the four areas. Students on academic probation must make no grade lower than a "B" in the first 12 hours of their graduate work in order to remain in the program.

## Denial

Admission will be denied if the application materials 1) do not meet the standards in three of the four categories; or 2) if the materials do not meet the standards in two of the categories, and in the remaining two categories meet the standards but in an unexceptional manner.

## Deficiency Courses

Students who wish to pursue the Master's degree but who do not have an undergraduate major in English will probably be required to take between 3 and 12 hours in specified advanced undergraduate courses and make no grade lower than a "B." These courses will not be counted for graduate credit, but instead will provide the necessary background for pursuit of the graduate degree.

## Fellowships

The same four criteria used to determine admission to the M.A. or Ph.D. programs will be considered when awarding graduate fellowships.

The Graduate School stipulates that: "Fellowships, when available, will be awarded on a competitive basis based on the following criteria: Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships. The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School."

## Graduate Teaching Assistantships

Please consult the Director of First Year English, for more information on Graduate Teaching Assistantships.

## Degree Requirements

### Master of Arts

1. The program has thesis and non-thesis options.
2. 5300: Theory and Practice in English Studies is required. It must be taken within a student's first 12 hours of study.
3. The thesis option is a 30 credit-hour program and requires 24 hours of coursework (a three credit-hour core course and 21 hours of electives) and at least six hours of thesis. The degree culminates with the defense of thesis.
4. Students must apply for the thesis option during their 24th hour of coursework. A student who elects to write a thesis must select a topic in consultation with his/her thesis director. Before the student registers for thesis hours, a Thesis Committee (a director and two readers) must be established.
5. The non-thesis option requires a 36 credit-hour program of coursework (a three credit-hour core course and 33 hours of electives) and a comprehensive examination on coursework.

### Doctor of Philosophy

1. The Ph.D. requires thirty semester hours of coursework beyond the M.A., followed by a minimum of 9 hours of dissertation work.
2. 5300: Theory and Practice in English Studies is required. It must be taken within a student's first 12 hours of study unless they have already taken 5300 while in the M.A. program and received a grade of B or higher.
3. All students are also required to take 5311: Foundation of Rhetoric OR 5359: Argumentation Theory as early in their programs as possible.
4. Students are allowed to take 9 hours of coursework outside the English department.
5. The Ph.D. track in English requires basic proficiency in translation in one natural language other than English.

Students must consult with the Graduate Advisor and the chair of their dissertation committee to carefully construct a coherent focus for their coursework and comprehensive examinations. After completing coursework and satisfying the foreign language requirement, students will take a written comprehensive examination. While studying for the comprehensive exams, students may enroll in English 6391: Graduate Readings, supervised reading for the Ph.D. exam, graded R. By the end of the first semester after successfully completing the comprehensive examinations, the students must submit a dissertation prospectus to their committee. The dissertation must be an original, substantial and significant contribution to a scholarly field. Students should work closely with the chair of their committee while researching and writing their dissertation. While researching and writing their dissertation, students must enroll in dissertation hours (ENGL 6399, 6699 or 6999). In the final semester of dissertation work, students must enroll in ENGL 7399. Once the student, the chair of the committee, and the primary readers agree that the dissertation is sufficiently completed, the student may schedule the defense. The student must furnish each committee member with a copy of the dissertation, including notes and bibliography, at least three weeks prior to the defense date. The defense of the dissertation is oral. The defense is open to all members of the faculty, graduate students and invited guests of the university community. Questioning of the candidate will be directed by the student's dissertation supervising committee, but any person attending the defense may participate. Committee members may request that the dissertation be further revised and may withhold final approval of the dissertation until the revisions have been made. For more specific information regarding degree requirements, please consult the Graduate Handbook of the Department of English.

## ENGL Courses

### ENGL5191 – INDEPENDENT STUDY

1 Lecture Hour · 0 Lab Hours

Supervised independent study at the M.A. or Ph.D. level.

### ENGL5300 – THEORY AND PRACTICE IN ENGLISH STUDIES

3 Lecture Hours · 0 Lab Hours

Core graduate course, introduction to graduate study in English. Covers a wide range of methodological and theoretical approaches to, as well as current issues in, criticism, rhetoric, and literary studies. Enrollment requires the approval of the Graduate Advisor in English.

### ENGL5301 – MEDIEVAL ENGLISH LITERATURE

3 Lecture Hours · 0 Lab Hours

English literature of the period before 1500. May include Old English poetry, Anglo-Latin prose, William Langland, the alliterative revival, romances, Malory, and Chaucer.

### ENGL5302 – 16TH CENTURY BRITISH LITERATURE

3 Lecture Hours · 0 Lab Hours

Non-dramatic literature of the 16th century, including works by Thomas More, Sir Philip Sidney, Sir Walter Raleigh, John Skelton, Edmund Spenser, and Elizabeth I.

### ENGL5303 – 17TH CENTURY ENGLISH LITERATURE

3 Lecture Hours · 0 Lab Hours

Poetry and prose of the 17th Century. May include a study of Milton and/or a study of writers and motifs of the period.

### ENGL5304 – RESTORATION AND 18TH CENTURY BRITISH LITERATURE

3 Lecture Hours · 0 Lab Hours

Drama, poetry, fiction, and essays from 1660 to 1798. Includes writers such as John Dryden, Aphra Behn, Alexander Pope, Samuel Johnson, Henry Mackenzie, Ignatio Sancho, and Maria Edgeworth, as well as issues of the period such as the nature of reason.

### ENGL5305 – ROMANTIC BRITISH LITERATURE

3 Lecture Hours · 0 Lab Hours

Poetry and fiction from 1798 to 1837. Includes writers such as William and Dorothy Wordsworth, Mary and Percy Shelley, Felicia Hemans, and Walter Scott, as well as issues such as the meaning of nature.

### ENGL5306 – VICTORIAN ENGLISH LITERATURE

3 Lecture Hours · 0 Lab Hours

Concepts and problems in texts by Victorian novelists, poets, and essayists (writers will vary). Attention to historical and cultural as well as literary issues.

### ENGL5307 – 19TH CENTURY BRITISH LITERATURE AND CULTURE

3 Lecture Hours · 0 Lab Hours

An overview of the writings and culture of the long 19th century in Britain from 1798 to 1914. Makes connections between Romantic and Victorian periods, covers literary and other relations with the empire, and includes significant non-literary figures such as Darwin and Freud.

### **ENGL5308 – SHAKESPEARE**

**3** Lecture Hours · **0** Lab Hours

Representative works of Shakespeare. May vary from comprehensive readings in the dramatic literature to intensive examination of certain plays, or to other related topics.

### **ENGL5311 – FOUNDATIONS OF RHETORIC AND COMPOSITION**

**3** Lecture Hours · **0** Lab Hours

An intellectual and institutional history of rhetoric and composition studies. Special attention will be given to the history and ethics of writing instruction; the importation of classical rhetoric into contemporary composition classrooms; the institutional formation of the field and its ambiguous status in the academy; and the major contemporary pedagogical approaches (e.g., expressivism, cognitivism, social constructionism). May also address recent topics that have attracted the attention of the field (e.g., dialogism, institutional critique, plagiarism, post-process theory, service learning, writing across and beyond the curriculum).

### **ENGL5313 – 20TH CENTURY BRITISH LITERATURE**

**3** Lecture Hours · **0** Lab Hours

A study of English and Irish writing in the 20th Century; may focus on major authors, themes, or topics.

### **ENGL5320 – SELECTED READINGS IN AMERICAN LITERATURE BEFORE 1800**

**3** Lecture Hours · **0** Lab Hours

Designed to establish the diversity of our early literature. Includes Indian oral literature, travel accounts, Puritan writing, diaries, autobiography, poetry, drama and fiction. Cultural context stressed.

### **ENGL5322 – 19TH CENTURY AMERICAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Examines significant authors, forms, and aesthetic movements within literary, historical, and cultural contexts. Writers examined may include established figures associated with traditionally recognized forms, movements, and eras, such as Romanticism, the domestic novel, the American Literary Renaissance, slave narratives, Realism, and Naturalism, as well as non-canonical authors and less-recognized forms and movements.

### **ENGL5323 – AMERICAN LITERATURE SINCE 1900**

**3** Lecture Hours · **0** Lab Hours

Includes representative works of multiple authors selected for the study of modern and contemporary themes and methods.

### **ENGL5324 – TOPICS IN AMERICAN LITERARY GENRES**

**3** Lecture Hours · **0** Lab Hours

Concentrates on the nature and aesthetic-cultural significance of one literary genre. Genres examined may include, but are not limited to, poetry, drama, fiction, autobiography, travel literature, and oral narratives. May be repeated when content changes.

### **ENGL5326 – TOPICS IN AMERICAN LITERATURE BEFORE 1900**

**3** Lecture Hours · **0** Lab Hours

May focus on one to three writers such as Melville, Hawthorne, or Emerson, or a significant theme or movement such as the rise of Realism, the representation of women, or women's fiction. May be repeated when content changes.

### **ENGL5327 – TOPICS IN 20TH CENTURY AMERICAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours

May focus on one to three writers such as Faulkner, O'Neill, or Morrison, or a significant theme or movement such as Modernism and Postmodernism, multicultural narrative, or feminist theory/feminist fiction. May be repeated when content changes.

### **ENGL5330 – TOPICS IN CRITICISM**

**3** Lecture Hours · **0** Lab Hours

Studies in critical topics such as textual criticism, psychoanalytic criticism, philosophy and criticism, Renaissance poetics and literature, critical movements, or focus on a major theorist in criticism. May be repeated when content changes.

### **ENGL5331 – TOPICS IN LANGUAGE OR DISCOURSE STUDIES**

**3** Lecture Hours · **0** Lab Hours

Concentration on historical and theoretical approaches to the study of language and the specific discursive practices of its users. May be repeated for credit when content changes.

### **ENGL5337 – SEMINAR IN TEACHING LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Study of recent scholarship in English Studies and other disciplines pertaining to the teaching of literature. Comparative analysis of methods and objectives for the teaching of literature. Course will include a practicum component in which students observe the teaching of experienced faculty, teach particular texts, design syllabi and write statements of teaching philosophy. The course is intended to prepare graduate students to teach literature courses at the university, college or community college level, and to provide a range of pedagogical models to enhance the skills of secondary school teachers.

### **ENGL5340 – CRITICAL THEORY: THE MAJOR TRADITIONAL TEXTS**

**3** Lecture Hours · **0** Lab Hours

A study of literary and cultural theory and practice from the Greco-Roman period to the early 20th Century. May include such theorists as Plato, Aristotle, Horace, Longinus, Dante, Sidney, B. Jonson, Dryden, Pope, Johnson, Coleridge, Arnold, Richards, Eliot, and others.

### **ENGL5350 – HISTORY OF RHETORIC I: CLASSICAL RHETORIC**

**3** Lecture Hours · **0** Lab Hours

A study of the theory and practice of Greco-Roman rhetoric from its pre-Socratic origins to the Second Sophistic. Attention will be given to major theorists, such as Gorgias, Protagoras, Plato, Aristotle, Isocrates, Hermagoras, Hermogenes, Cicero, Quintilian and the transitional figure of St. Augustine.

### **ENGL5351 – HISTORY OF RHETORIC II: MEDIEVAL AND RENAISSANCE RHETORIC**

**3** Lecture Hours · **0** Lab Hours

A study of the theory and practice of western rhetoric from the early medieval period through the Renaissance. Attention will be given to major theorists, such as St. Augustine, Geoffrey of Vinsauf, Robert of Basevorn, Christine de Pizan, Desiderius Erasmus, Baldesar Castiglione, Juan Luis Vives, Sir Philip Sidney, Peter Ramus and Francis Bacon.

### **ENGL5352 – HISTORY OF RHETORIC III: MODERN AND CONTEMPORARY RHETORIC**

**3** Lecture Hours · **0** Lab Hours

A study of the theory and practice of western rhetoric from the 18th century to the present. Attention will be given to major theorists, such as Whatley, Blair, Bain, Campbell, Spencer, Richards, Burke, Weaver, Toulmin, Perelman, Bitzer, Vatz, Harriman, Leff, Farrell, McGee, Gaonkar, Kinneavy, Scott, Crosswhite, Meyer, Gross, Miller, Fuller and Kent.

### **ENGL5355 – STUDIES IN ENGLISH DISCOURSE**

**3** Lecture Hours · **0** Lab Hours



Analysis of English grammatical structures above the level of the clause, including the sentence, the paragraph, and the whole text; examination of the work of major discourse theorists Dik, Harris, Halliday, Longacre, Pike and van Dijk.

### **ENGL5356 – COMPOSING PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Study of research about writing processes and examination of the available methods of conducting research; special attention given to major researchers and theorists.

### **ENGL5357 – READING PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Contemporary theories of interpretation and empirical research into reading processes; special attention given to major researchers and theorists.

### **ENGL5358 – WRITING ASSESSMENT, EVALUATION, AND RESPONSE**

**3** Lecture Hours · **0** Lab Hours

Study of the methods and ethics of assessing, evaluating, and responding to the writing of students individually or collectively.

### **ENGL5359 – ARGUMENTATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Emphasis on theories of argumentation and persuasion that further the rhetorical aims of convincing or achieving agreement through identification and consensus. Attention to classical and contemporary approaches to issue analysis, invention, audience analysis, building common ground, stasis theory, types of proofs and tests of validity, organizational strategies, and style. Special attention to argument on the Internet. Assignments may include constructing Web sites related to argument. Study of such theorists as Aristotle, Perelman, Toulmin, Ong, K. Burke, Brockreide and Ehninger, Bitzer, Young, Becker and Pike, and others.

### **ENGL5360 – CONTEMPORARY CRITICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

Study of contemporary theories of interpretation, concentrating on one or more schools of critical and cultural theory may include, New Criticism, the Neo-Aristotelians, Marxist Critical Theory, Hermeneutics, psychoanalysis, Russian Formalism, semiotics, speech-act theory, phenomenology, structuralism, and post-structuralism. May be repeated when content changes.

### **ENGL5370 – SCHOLARLY ARGUMENT**

**3** Lecture Hours · **0** Lab Hours

An introduction to the research for the writing of argumentative scholarly essays. Surveys research skills, materials, forms of scholarly argument, and involves the writing of a research-based essay.

### **ENGL5380 – TEXTUAL THEORIES OF CULTURE**

**3** Lecture Hours · **0** Lab Hours

Study of the interpretations of culture yielded by the traditions of semiotics and hermeneutics and cultural studies may include works by the following: Lyotard, Foucault, Habermas, Derrida, Pierce, Barthes, Deleuze, Gadamer, Levi-Strauss, Butler, Haraway, and Hall.

### **ENGL5388 – GTA PREPARATION**

**3** Lecture Hours · **0** Lab Hours

### **ENGL5389 – TOPICS IN TEACHING COMPOSITION**



**3** Lecture Hours · **0** Lab Hours

Seminar for investigating problems of and approaches to teaching composition. Special attention given to current compositional theorists. May be repeated when content changes.

### **ENGL5391 – INDEPENDENT STUDY**

**3** Lecture Hours · **0** Lab Hours

Supervised independent study at the M.A. or Ph.D. level.

### **ENGL5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee, and (b) in the semester or term in which the Master of Arts degree will be conferred.

### **ENGL5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee, and (b) in the semester or term in which the Master of Arts degree will be conferred.

### **ENGL5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee, and (b) in the semester or term in which the Master of Arts degree will be conferred.

### **ENGL6191 – INDEPENDENT STUDY**

**1** Lecture Hour · **0** Lab Hours

Independent study at the M.A. or Ph.D. level. May be repeated as needed. Prerequisite: permission of instructor.

### **ENGL6329 – TOPICS AND THEMES IN COMPARATIVE LITERATURE**

**3** Lecture Hours · **0** Lab Hours

The study of a theme or topic, such as primitivism, utopianism, representations of the unconscious, or the quest, within different literary traditions. May be repeated as content changes.

### **ENGL6330 – GENRE STUDIES IN BRITISH LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Intensive study of a genre in any period(s) of British Literature; may focus on autobiography, history of the novel, Restoration and eighteenth-century drama, nineteenth-century British fiction, or other. May be repeated when course content changes.

### **ENGL6333 – GENRES IN COMPARATIVE LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Theory of literary forms or types and the conventions they embody. May focus on the epic, the novel, lyric poetry, autobiography, drama, or magical realism, across different literary traditions. May be repeated as course content changes.

### **ENGL6335 – TOPICS IN ENGLISH LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Focus on writers or issues in literature written in English, including colonial and postcolonial literatures. May include poetry, drama, fiction, or non-fiction. May be repeated when content changes.

### **ENGL6339 – TOPICS IN AMERICAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Themes or issues not bound by particular historical periods, for example, women writers, canon formation, American Indian literature, African-American literature, utopian literature, cultural studies. May be repeated when content changes.

### **ENGL6340 – METACRITICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A study of theories of literature from the point of view of their systems-theoretical character. Focuses on the writing of selected metatheorists such as Barbour, Braithwaite, Bruss, Harr, Lakotos, Popper, Rescher, and others, on questions of the genesis, nature, function, validity, and potential of literary theory.

### **ENGL6350 – TOPICS IN THE HISTORY AND THEORY OF RHETORIC**

**3** Lecture Hours · **0** Lab Hours

An intensive study of specific problems or issues in classical, medieval, Renaissance, modern, or contemporary rhetoric, (e.g., civic functions of rhetoric, logic and rhetoric, rhetoric of science, theories of invention), especially those that involve the connections and collisions between rhetoric and other intellectual traditions (e.g., critical theory, cultural studies, feminist theory, history, literary studies, non-western rhetoric, philosophy). May focus on the work of a major theorist. May be repeated for credit when content changes.

### **ENGL6351 – TOPICS IN COMPOSITION STUDIES**

**3** Lecture Hours · **0** Lab Hours

An intensive study of specific problems or issues in contemporary composition studies (e.g., authorship and intellectual property, computers and composition, the ideologies of writing instruction, the role of empirical research, service learning), especially those that involve connections and collisions between composition studies and other intellectual traditions (e.g., cognitive science, critical theory, cultural studies, feminist theory, hermeneutics, history, linguistics, literary study, rhetoric, philosophy, psychology, sociology). May focus on the work of a major researcher or theorist. May be repeated for credit when content changes.

### **ENGL6360 – TOPICS IN FEMINIST THEORY**

**3** Lecture Hours · **0** Lab Hours

Study of interdisciplinary feminist theories of language, power, knowledge, and culture. Course may focus on Marxist feminism, postmodern feminism, feminist cultural studies, or other topics. Course may include such theorists as Wollstonecraft, Woolf, Beauvoir, Irigaray, Spillers, Anzaldua, Haraway, Butler, or Cornell.

### **ENGL6370 – TOPICS IN LITERATURE AND THE ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Introduces interdisciplinary theories and methods of the environmental humanities, in order to investigate how texts and other cultural practices represent and engage with the natural world. Topics may include environmental theories, nature writing, animal studies, environmental literature, film, science studies, environmental justice, posthumanism, green cultural studies. May be repeated for credit when course changes.

### **ENGL6391 – GRADUATE READINGS**

**3** Lecture Hours · **0** Lab Hours

Supervised reading for the Ph.D. exam.

### **ENGL6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the dissertation with the supervisory committee, and (b) in the semester or term in which the Ph.D. will be conferred. A minimum of 9 hours of dissertation credit is required for the Ph.D. Graduate teaching assistants must take 6699. 6999 must be taken during the final semester of the Ph.D.

### **ENGL6691 – GRADUATE READINGS**

**6** Lecture Hours · **0** Lab Hours

Independent Reading for the Comprehensive Exam.

### **ENGL6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the dissertation with the supervisory committee, and (b) in the semester or term in which the Ph.D. will be conferred. A minimum of 9 hours of dissertation credit is required for the Ph.D. Graduate teaching assistants must take 6699. 6999 must be taken during the final semester of the Ph.D.

### **ENGL6991 – GRADUATE READINGS**

**9** Lecture Hours · **0** Lab Hours

Independent Reading for the Comprehensive Examination.

### **ENGL6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the dissertation with the supervisory committee, and (b) in the semester or term in which the Ph.D. will be conferred. A minimum of 9 hours of dissertation credit is required for the Ph.D. Graduate teaching assistants must take 6699. 6999 must be taken during the final semester of the Ph.D.

### **ENGL7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## History

College of Liberal Arts

**Chair William Dulaney**

**Chair Scott Palmer**

Web [www.uta.edu/history/](http://www.uta.edu/history/)

Email [history@uta.edu](mailto:history@uta.edu)

Phone 817.272.2861

Fax 817.272.2852

**201 University Hall**

---

### Degrees / Certificates

#### Master's Degrees

History, M.A.

#### Doctoral Degrees

Transatlantic History, B.A. to Ph.D.

Transatlantic History, Ph.D.

#### Certificates

Archival Administration Certificate

---

### Graduate Faculty

**Paul Conrad**

**David Lafevor**

**Scott Palmer**

#### Professor

**Thomas Adam**

**Imre Demhardt**

**Robert Fairbanks**

**Sam Haynes**

**Donald Kyle**

**Christopher Morris**

**Stanley Palmer**

**Jerry Rodnitzky**

#### Associate Professor

**Elisabeth Cawthon**

**Stephanie Cole**

**William Dulaney**

**John Garrigus**

**Joyce Goldberg**

**Alusine Jalloh**

**Stephen Maizlish**

**David Narrett**

[Steven Reinhardt](#)  
[Gerald Saxon](#)  
[Roberto Trevino](#)

**Assistant Professor**

[Patryk Babiracki](#)  
[Oliver Bateman](#)  
[Sarah Rose](#)  
[Cristina Salinas](#)  
[Kenyon Zimmer](#)

**Professor Emeritus**

[George Green](#)  
[Kenneth Philp](#)  
[Douglas Richmond](#)

---

## Graduate Advisors

**Stephanie Cole**

*History, M.A.*

**John Garrigus**

*Transatlantic History, Ph.D.*

**Kenyon Zimmer**

*Transatlantic History, B.A. to Ph.D.*  
*Transatlantic History, Ph.D.*

---

## Department Information

### Courses

# Department Information

### Objectives

### Admission Standards

- [M.A. Program](#)
- [Ph.D. Program](#)

### M.A. Degree Requirements

### Archival Administration and Public History

### Master of Education in Teaching (M.Ed.T.)

### Ph.D. Degree Requirements

### Diagnostic Evaluation

### Language Requirement

### Comprehensive Exam

### Dissertation Guidelines

## Objectives

Graduate study in history seeks not only to train students in historical methods and analysis but also to nurture in them a sense of the excitement and relevance of studying the past. Exploring the historical diversity of human experience broadens and deepens our understanding of both the past and the contemporary world. Students who complete graduate studies in history pursue careers in teaching, research and archival or museum administration, as well as in government and business.

The Master's Degree Program offers students graduate history training in either U.S. history or the history of Europe, Africa and Latin America. In the flexible Master's degree curriculum, apart from two required courses early in the program, students tailor their course of study to meet individual interests and career objectives. Students choose either Thesis or Non-Thesis programs. Coursework and internships in Archival Administration certification and/or Public History are also available as part of the Master's degree program.

The Doctoral Degree Program in Transatlantic History offers students comparative study of the historical development of peoples on the continents bordering the Atlantic Ocean. This exciting Ph.D. program is part of recent developments within the discipline of history that broaden the study of the past, transcend national histories, and contribute to a new transnational and comparative perspective. Utilizing specific research resources in the UT Arlington Libraries, the Ph.D. program in Transatlantic History (1492 to the present) offers a structured and focused curriculum of both required and elective courses. Prerequisite: B.A. or M.A. degree in history.

## Admission Standards

In compliance with HB 1641, the History Department does not assign a specific weight to any one factor being considered, and does not use standardized tests (i.e., the GRE) in the admissions or competitive fellowship or scholarship process as the sole criterion for consideration or as the primary criterion to end consideration of an applicant to either the M.A. or Ph.D. program. However, the GRE is required and used as a criterion, without specific weight, in the Department's evaluation of candidates for admission to programs at each of three levels: Unconditional, Provisional, and Probationary Admission.

The Department wishes to be as thorough and fair as possible in evaluating applicants for admission. It recognizes that some applicants may appear to be stronger according to some criteria than according to other criteria. When an applicant does not completely meet the minimum expectations for Unconditional Admission, the Department may consider the applicant for possible Provisional or Probationary Admission. When the applicant is not granted any of the three levels of admission, the decision may be deferred or the application is denied. We do not wish to exclude a qualified and potentially successful candidate who perhaps has approached but not met all the criteria completely. However, we do not wish to admit candidates who, based on the criteria, are deemed to have a poor chance of successfully completing the graduate program.

## M.A. Program

### Unconditional Admission

The criteria for admission below are used, without specific weights, as positive indicators of potential success in the program. In all but the most exceptional cases, all four criteria for unconditional admission must be met in order to receive unconditional admission.

- Undergraduate GPA of 3.0 (as calculated by the Graduate School) in the last 60 credit hours in the course of completing a B.A. degree in History (or an appropriate other field) from an accredited institution (verified by official transcripts from each college or university previously attended sent directly from the registrar of that institution to Graduate Admissions).
- A writing sample, sent to the Graduate Advisor. The Department prefers that applicants send a research paper written in an upper-division history course, but other examples are acceptable. The essay should demonstrate the applicant's writing, research, and analytical skills where possible. There is not a specific page minimum, but papers should not be over 25 pages.
- Three letters of recommendation (from faculty if possible) mailed directly from the

recommenders to the History Graduate Advisor.

- A minimum score of 153 on the verbal section and a minimum score of 4 on the analytical writing section of the GRE aptitude test (verified by official GRE scores sent to Graduate Admissions). However, standardized test performance is not the sole criterion for admission or the primary criterion to end consideration for admission.

### **Provisional Admission**

An applicant unable to supply all required documentation (e.g. GRE scores have not yet arrived) prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisionally admitted students must adequately satisfy any incomplete documentation by the end of the semester in which they are admitted. If the applicant fails to do so, the Department may then reclassify the applicant as Probationary, defer the decision, or ask the candidate to leave the program.

### **Probationary Admission**

An applicant whose performance, according to the criteria, approximates but does not meet minimum admission standards may be granted Probationary Admission subject to one or both of the following conditions:

- The candidate must earn no grade lower than a B in his/her first 12 semester hours of graduate work taken at UT Arlington.
- Candidates without adequate appropriate preparation in the discipline of History may be required to complete a certain number of "leveling" courses (i.e. make-up coursework) while in the program.

### **Deferral or Denial**

If two or more of the criteria have not been met satisfactorily, the applicant will not be admitted on any of the three levels above but will receive deferral or denial. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **M.A. Fellowship Standards**

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Enhanced Graduate Teaching Assistantship will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, and must maintain full-time status (9 hours of enrollment) in both long semesters to retain their EGTA.
- The minimum undergraduate GPA requirement is 3.0, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours. (Exceptional cases will be considered.)
- Transcript of a completed bachelor's degree in History (or appropriate related field) from an accredited institution.
- Three letters of recommendation (from faculty if possible).
- A writing sample demonstrating candidate's research, writing, and analytical skills, of not less than 8 or more than 25 pages.

## **Ph.D. Program**

### **Unconditional Admission**

The criteria for admission below are used, without specific weight, as positive indicators of potential success in the program. All criteria must be met in order to receive consideration for unconditional admission.

- A prior academic degree (B.A. in History or related fields) from an accredited institution (verified by transcripts from each college or university previously attended sent directly from the registrar of that institution to Graduate Admissions). We will also consider students who already acquired an MA degree in history understanding that they might be asked to complete leveling work.



- A minimum undergraduate GPA of 3.0 in the course of completing a B.A. degree in History or a related field from an accredited institution (verified by official transcripts from each college or university previously attended sent directly from the registrar of that institution to Graduate Admissions).
- An academic writing sample (e.g. research essay) from a previous course assignment.
- Three letters of recommendation (from university or college professors) mailed directly from the recommenders to the History Ph.D. Advisor.
- A minimum score of 550 on the verbal section and a minimum score of 5 on the analytical writing section of the GRE aptitude test (verified by official GRE scores sent to Graduate Admissions) is preferred but standardized test performance is not the sole criterion for admission or the primary criterion to end consideration for admission.

### **Provisional Admission**

An applicant unable to supply all required documentation (e.g., GRE scores) prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisionally admitted students must adequately satisfy any incomplete documentation by the end of the semester in which they are admitted. If the applicant fails to do so, the student will be dropped from the program. He or she may seek readmission when provisional requirements are complete.

### **Probationary Admission**

An applicant whose credentials approximate but do not meet minimum admission standards, may be granted Probationary Admission subject to the condition that the candidate must earn no grade lower than a B in his/her first 12 semester hours of graduate work taken at UT Arlington.

### **Deferral or Denial**

If two or more of the criteria have not been met satisfactorily, the applicant will not be admitted on any of the three levels above but will receive deferral or denial. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Application Deadline**

The Ph.D. admissions committee will begin its evaluation of completed applications on January 15 and will continue to meet periodically until the Graduate School deadline of June 15. Decisions concerning fellowships and assistantships will be made beginning March 15 and will continue thereafter depending on availability.

### **Ph.D. Fellowship Standards**

Fellowships, when available, will be awarded on a competitive basis. The criteria for Liberal Arts Special (Transatlantic) Doctoral Fellowships in History are:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.
- Undergraduate GPA of 3.25 for the last 60 undergraduate hours from an accredited institution.
- Three letters of recommendation (from faculty if possible)
- An academic writing sample (e.g. research essay, thesis chapter) from a previous undergraduate course assignment.

### **M.A. Degree Requirements**

Courses taken toward a master's degree should fit into a unified program aimed at providing students with both a comprehensive background and a depth of understanding in a major field in either U.S. History or the History of Europe, Africa and Latin America. All students are required to take HIST 5339 Historical Theory and Methodology and the Issues & Interpretations course corresponding to their major field (either HIST 5340 or 5341). All students must take a minimum of



six hours in both the Colloquium and the Seminar courses. Master's students are eligible to take courses at the 6000 level as well as 5000 level, subject to any particular course prerequisites. Students must consult with the Graduate Advisor to determine their program.

Competency in one foreign language is required to obtain the Master's degree. This may be demonstrated by four semesters of credit in an approved language or by successful completion of an examination administered by the Department of Foreign Languages or by the History Department.

The Thesis degree plan is designed for students who wish to research and write a substantial, original work on a historical topic of personal interest. The plan requires completion of 30 credit hours (24 hours of coursework, plus 6 hours of thesis preparation). With the approval of the Graduate Advisor, thesis students may have a minor of as many as six hours of graduate and/or advanced undergraduate courses in a discipline other than history. A maximum of six hours of advanced undergraduate history coursework may be taken for graduate credit. Thesis candidates should consult with the Graduate Advisor to form their thesis faculty committee, which consists of one supervising professor and two other professors.

The Non-Thesis degree plan requires completion of 36 credit hours of coursework. With the approval of the Graduate Advisor, non-thesis students may have a minor of as many as nine hours of graduate and/or advanced undergraduate courses in a discipline other than history. A maximum of nine hours of advanced undergraduate coursework may be taken for graduate credit. In the final semester, the non-thesis students are required to form a nonthesis faculty committee in consultation with the Graduate Advisor, consisting of three members of the graduate faculty. The student must submit to this committee a portfolio containing their seminar paper(s) and a selection of three papers that required an analysis of historiography. After reviewing the portfolio, the committee will devise a new assignment for the student to complete based on its determination of what best fits the needs of the student, keeping in mind that the assignment will constitute less than the equivalent of 3 credit hours of course work. The student will complete the assignment during his/her final semester and turn it into the faculty committee, where it must receive an evaluation of "adequate" or better. The committee will meet the student for a final oral exam, in which the student discusses his/her project.

## **Archival Administration and Public History**

These studies involve application of historical knowledge and methodology in non-academic settings such as private businesses or public historical agencies (e.g., archives, museums, preservation societies).

Students desiring a certificate of archival administration as part of the Master of Arts in History degree must take HIST 5339 and HIST 5340 or HIST 5341 and HIST 5395, and enroll in 15 hours of other courses in either U.S. history or the history of Europe, Africa and Latin America. In addition, they must take HIST 5342 and HIST 5343, plus an additional six hours of internship, HIST 5644. Students already holding a M.A. or Ph.D. degree in history or a related field, as well as students enrolled in graduate programs other than history, who desire only a certificate in archival administration should consult the Graduate Advisor.

Students desiring public history as an area of study as part of the Master of Arts in History degree must take HIST 5339, HIST 5340 or HIST 5341, and HIST 5395, and also enroll in 9 hours of content courses in either U.S. history or the history of Europe, Africa and Latin America. At least 3 hours must be in both colloquium and seminar courses. In addition, students must take the following required 12 hours HIST 5342, HIST 5343, HIST 5345, and HIST 5348, plus an additional six hours of internship (HIST 5644). Students electing to complete an internship in archival management will also earn the certificate in archival administration (see above).

Students interested in either archival administration or public history as an area of study are encouraged to consult the Graduate Advisor to discuss a program of work.

## **Master of Education in Teaching (M.Ed.T.)**

History may be chosen as an appropriate academic specialization or teaching field for students

enrolled in the Master of Education in Teaching Degree Program. The History Department offers courses that qualify as an academic area or teaching field for elementary and secondary teachers. HIST 5340 and/or HIST 5341 are especially recommended for students in the M.Ed.T. program, and for others who wish to broaden their historical knowledge for classroom teaching. See Master of Education in Teaching Degree Program.

## Ph.D. Degree Requirements

Students accepted into the transatlantic MA/PhD program are expected to take a total of 48 semester credit hours in a three-year period: During the first year, students take HIST 5339, and HIST 5340 or 5341 as well as two 5000-level colloquia and two 5000-level seminars. The first year is intended to provide students with solid background knowledge in graduate-level historical study. For this purpose the Graduate Advisor will in consultation with the student choose those colloquia and seminars that best fulfill this purpose. During their second and third year, students take HIST 6337 and HIST 6338, four 6000-level colloquia, and two of the three 6000-level seminars within the field of transatlantic history. In their last semester, students enroll in HIST 6690 to prepare for the Comprehensive Exam.

HIST 5339: Historical Theory & Methodology

HIST 5340: Issues and Interpretations in U.S. History

HIST 5341: Issues and Interpretations in European/Latin American/African History

### 5000-Level Colloquiums and Seminars

These courses will be chosen from the 5000-level colloquiums and seminars offered during the student's first year of study.

### Introduction to Transatlantic History

HIST 6337: Introduction to Transatlantic History to 1800

HIST 6338: Introduction to Transatlantic History post 1800

### 6000-Level Colloquia:

HIST 6301: Exploration and Cartography

HIST 6302: Migration and Settlement

HIST 6303: Revolutions and Transformations

HIST 6304: Identities and Encounters

### 6000-Level Seminars:

HIST 6321: Transatlantic History, 1492-1800

HIST 6322: Transatlantic History, 1800-Present

HIST 6323: Colonialism and Imperialism, 1700-Present

Full time doctoral students are expected to take nine hours each semester. Part time students are required to take at least six hours each semester. Each semester a student must consult the Graduate Advisor before he/she can be cleared to register.

### Course of study for full-time students

First Year	
<b>Fall</b>	<b>Spring</b>
HIST 5339	HIST 5340 or 5341
one 5000-level colloquium	one 5000-level seminar
one 5000-level seminar	one 5000-level colloquium
Second Year	
<b>Fall</b>	<b>Spring</b>
HIST 6337	HIST 6303
HIST 6301	HIST 6321
HIST 6302	One elective course
Third Year	
<b>Fall</b>	<b>Spring</b>

HIST 6338	HIST 6322
HIST 6304	HIST 6690
HIST 6323	
<b>Fourth Year</b>	
<b>Fall</b>	<b>Spring</b>
Comprehensive Exam	Dissertation Proposal is due
<b>Fifth and Sixth Year</b>	
Research and Writing of the dissertation	

## Diagnostic Evaluation

At the end of the first academic year or after the student has completed the first 18 hours of coursework, each student will have to pass a diagnostic evaluation. History faculty with whom the student has worked will be asked to submit a written evaluation of the student's potential to continue in the program, using a form developed by the Graduate Advisor. The Graduate Studies Committee will review these evaluations and give each student one of four results:

1. approval to continue in the doctoral program;
2. approval to continue with specified remedial work;
3. failure, but with permission for assessment through a second diagnostic evaluation after no more than one year;
4. failure and referral of the student to the MA program, in which the student will be allowed to work towards a terminal MA degree.

## Language Requirement

If the student has not already fulfilled the foreign language requirement before entering the MA/PhD program, he/she is expected to use the first three years in the program to satisfy the foreign language requirement. The student is expected to choose a language that will be required to work on the PhD topic of his/her choice. Each student is expected to have a solid reading knowledge in at least one transatlantic language (modern languages of the European and African peoples other than English). The language proficiency can be demonstrated in three different ways:

1. If the student has not already taken four semesters (from an accredited university) in a single foreign language with at least a B before being admitted to the MA/PhD program (within 10 years prior to admission), the student needs to complete four semesters in one foreign language with at least a grade of B prior to taking the Comprehensive Exam.
2. Demonstrating proficiency in a foreign language by taking the CLEP test and scoring 71-80 in German, 68-80 in French, and 67-80 in Spanish.
3. Taking the Reading Comprehension Exercise by an appropriate faculty member in which the student during one semester must read one monograph (about 200-300 pages) in a language other than English and submit a five-seven page summary in English, which must include up to three pages of direct translation.

The language requirement must be satisfied before the student can take the Comprehensive Exam. For the student at the dissertation stage, the candidate's doctoral committee may require that the student demonstrates competency in a second foreign language in the same fashion as the first foreign language if that second language is judged essential for the student's dissertation research.

## Comprehensive Exam

### Comprehensive Exam Committee

If the student is allowed to stay in the program, he/she should, after consultation with the Ph.D. Advisor, consider establishing a five-member Comprehensive Exam Committee. The student must first ask a graduate faculty member whose research closely relates to the student's anticipated dissertation topic to chair the committee. The chair of the committee will then assist the student in assembling the rest of the committee. Four of the five committee members must be from UTA's

History Department. The PhD advisor reserves the right to attend the oral portion of the Comprehensive Exam. One member can be from outside the department or even from another university. All five members of the committee will read and assess the comprehensive examination and the dissertation prospectus.

### **Comprehensive Exam**

After the student has completed all or most of the 48 hours of coursework and satisfied the language requirement, he/she, upon consultation with the Ph.D. Advisor and the Comprehensive Exam Committee, should begin preparing for the Ph.D. Comprehensive Exam. It is strongly recommended that students wait until they have completed all 48 hours of coursework before they take the Exam. To prepare for the Comprehensive Examination, students may enroll in Independent Study courses, HIST 6190, 6390, 6690, or 6990 during their sixth semester.

Only after the student has the approval of the Ph.D. Advisor, he/she may arrange the date of the exam in consultation with all committee members. Only then may the **Request for the Comprehensive Examination** form be filed with the Graduate School. Please make sure to file the **Request for the Comprehensive Examination** in the first four weeks of the semester. (See the graduate program assistant in the History Department office to file the form.)

The Comprehensive Examination is meant to test the student's knowledge in at least three broad areas of study and is designed to determine whether the student is prepared to teach in those areas. **There are six areas for the Comprehensive Examination:**

1. Colonialism and Imperialism

This area focuses on the history of power relations among the peoples and nations within the transatlantic world.

2. Migration

This area focuses on the experience of migrants from Europe and Africa and the multi-cultural societies that developed in North and South America.

3. African Diaspora

This area is dedicated to the study of the forced migration of African peoples and the experience of their descendants throughout the transatlantic world.

4. History of Cartography and Historical Geography

This area deals with the visual representation of European expansion and European exploration of North and South America as well as the impact of geography on history.

5. Political and Economic Revolutions

This area focuses on the political revolutions and transformations from the end of the sixteenth century to the present day, industrialization, and the social unrest and protest movements that shaped political culture and the transatlantic world.

6. Intercultural Transfers

This area focuses on the intercultural transfer of ideas and concepts among societies within the transatlantic world.

The written portion of the exam will be taken over a period of three consecutive days, seven hours each day, from 9:00 a.m. to 4:00 p.m. The students will be examined over one area each day. Beginning with the first morning, the student should report to the graduate program assistant in the History Department office, who will issue the student the relevant question(s) for that day's examination. Students may use a personal computer available in the department to take their examination. They may not use texts or notes during the exam. Chairs should ensure that time-limits for individual parts of the examination are observed.

After the written exams are completed and the committee has read all three parts, students will take the oral exam (within a week of the written exam). Students must take both the written and oral exams or they will automatically fail the comprehensive exam. After the oral exam is over, the committee members will discuss the exam as a whole (written and oral). Then the committee will

decided on one of the four options listed below.

- A) Passed, approval and recommendation to begin dissertation research under the supervision of the committee chair.
- B) Passed, approval to remain in the program upon meeting certain specified additional requirements.
- C) Failed, with permission to retake the examination after a certain period as specified by the examining committee.
- D) Failed: Recommendation not to continue in the program.

Students are required to pass this examination before they proceed to the dissertation (ABD) phase of the program.

## Dissertation Guidelines

By the end of the first semester after the successful completion of the Comprehensive Examination, the student should submit a **dissertation prospectus** to his/her committee and the Ph.D. Advisor who assures that it fulfills the expectations of a doctoral project in transatlantic history. The dissertation committee ordinarily consists of three of the five professors involved in the Comprehensive Examination of the student. **All three members of the dissertation committee must be members of the UT Arlington History Department. The student together with his/her primary supervisor may, if deemed necessary, invite outside readers to become additional members of the dissertation committee.** Students should work closely with the chair of their committee while researching and writing their dissertation.

During the dissertation phase of the program, students enroll in HIST 6399, 6699 and 6999 and, in exceptional cases with prior approval of the Ph.D. Advisor, in HIST 6190. History 6190 may be taken by students following their Comprehensive Exams for a maximum of four semesters, if their dissertation chair concludes that in a given semester they are not engaged **full-time in work** on their dissertation. In the final semester of dissertation work, students must enroll in HIST 6999 to be in compliance with the requirement of the Graduate School. Students should be aware that the dissertation defense should occur **after NO more than four years from the Comprehensive Examination**. If the student takes more time to finish the doctoral dissertation, he/she has to file for an extension with the Graduate School.

Once the student, the chair of the committee, and the primary readers agree that the dissertation is ready to be defended, the student must submit the **request for dissertation defense** form and schedule the **dissertation defense**. Before he/she **applies for graduation**, the student must receive approval from the Ph.D. Advisor. The student should furnish each committee member with a copy of the dissertation, including notes and bibliography, at least three weeks prior to the defense date. The oral defense of the dissertation generally lasts 1-2 hours. Questioning of the candidate will be supervised by the chair of the student's dissertation committee. Committee members may request that the dissertation be further revised and may withhold final approval of the dissertation until the revisions have been made. If the dissertation has been approved by the committee, the student has to submit the **dissertation** and the **dissertation defense report** to the Graduate School. The deadline dates for each semester are published in the Graduate School Calendar.

## HIST Courses

### HIST5191 – INDEPENDENT STUDY

1 Lecture Hour · 0 Lab Hours

For masters students pursuing independent research or study under the supervision of a faculty member.

### **HIST5291 – INDEPENDENT STUDY**

**2** Lecture Hours · **0** Lab Hours

For masters students pursuing independent research or study under the supervision of a faculty member.

### **HIST5301 – READING COLLOQUIUM IN 19TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in 19th Century United States history. The specific literature and issues examined will vary with the instructor.

### **HIST5302 – READING COLLOQUIUM IN 20TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in 20th Century United States history. The specific literature and issues examined will vary with the instructor.

### **HIST5304 – READING COLLOQUIUM IN REGIONAL /TOPICAL U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues pertaining to a region or a major topic in the history of the U.S. The specific literature and issues examined will vary with the instructor.

### **HIST5310 – READING COLLOQUIUM IN ANCIENT AND MEDIEVAL HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in ancient and medieval history. The specific literature and issues examined will vary with the instructor.

### **HIST5311 – READING COLLOQUIUM IN PRE-1800 EUROPEAN / LATIN AMERICAN / AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in Pre-1800 European / Latin American / African history. The specific literature and issues examined will vary with the instructor.

### **HIST5312 – READING COLLOQUIUM IN POST-1800 EUROPEAN / LATIN AMERICAN / AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in Post-1800 European / Latin American / African history. The specific literature and issues examined will vary with the instructor.

### **HIST5313 – READING COLLOQUIUM IN REGIONAL/TOPICAL EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues pertaining to a region or a major topic in European / Latin American / African history. The specific literature and issues examined will vary with the instructor.

### **HIST5321 – RESEARCH SEMINAR IN 19TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of 19th Century United States history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5322 – RESEARCH SEMINAR IN 20TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours



A detailed investigation of a major aspect of 20th Century United States history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5324 – RESEARCH SEMINAR IN REGIONAL/TOPICAL U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of a region or a major topic in the history of the U.S., involving research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5330 – RESEARCH SEMINAR IN ANCIENT AND MEDIEVAL HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of ancient and medieval history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5331 – RESEARCH SEMINAR IN PRE-1800 EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of Pre-1800 European / Latin American / African history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5332 – RESEARCH SEMINAR IN POST-1800 EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of Post-1800 European / Latin American / African history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5333 – RESEARCH SEMINAR IN REGIONAL/TOPICAL EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a region or a major topic in European / Latin American / African history, involving research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5339 – HISTORICAL THEORY AND METHODOLOGY**

**3** Lecture Hours · **0** Lab Hours

An examination of theories of historical knowledge, the history of the discipline, various historical methodologies, and research techniques. Required for all history M.A. and Ph.D. students.

### **HIST5340 – ISSUES AND INTERPRETATIONS IN U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

A critical survey of U.S. historical scholarship from colonial times to the present. Required for all history M.A. students who are emphasizing U.S. history.

### **HIST5341 – ISSUES AND INTERPRETATIONS IN EUROPEAN / LATIN AMERICAN / AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A critical survey of European / Latin American / African historical scholarship from ancient times to the present. Required for all history M.A. students who are emphasizing European / Latin American / African history.

### **HIST5342 – PRINCIPLES OF ARCHIVES AND MUSEUMS I**

**3 Lecture Hours · 0 Lab Hours**

The historical evolution of archival science, emphasizing the development of the archives profession, archival principles and theories, appraisal and acquisition techniques, the laws affecting archives, programming and outreach, automation, conservation and preservation, and administration of collections.

### **HIST5343 – PRINCIPLES OF ARCHIVES AND MUSEUMS II**

**3 Lecture Hours · 0 Lab Hours**

Training in the methods and techniques of processing archives and historical manuscripts. Focuses on the day-to-day responsibilities of archivists and curators, such as appraising, accessioning, arranging, and describing collections.

### **HIST5345 – INTRODUCTION TO PUBLIC HISTORY**

**3 Lecture Hours · 0 Lab Hours**

An overview of the field of public history focusing on public historians, their work, their relationship to academic historians, their accomplishments, and the ethical principles under which they operate.

### **HIST5348 – TOPICS IN PUBLIC HISTORY**

**3 Lecture Hours · 0 Lab Hours**

A detailed examination of some aspect of public history (e.g. historical editing, oral history, historic preservation). The particular topic will vary with the instructor.

### **HIST5349 – TOPICS IN WORLD CIVILIZATION**

**3 Lecture Hours · 0 Lab Hours**

Examines subjects of immediate interest relating to world civilization not covered in other existing courses.

### **HIST5350 – HISTORY OF CARTOGRAPHY**

**3 Lecture Hours · 0 Lab Hours**

A history of maps and their making and cartographic documentation as a source for understanding historical development. An aspect of the history of science and technology and the history of discovery and exploration.

### **HIST5390 – DIRECTED STUDIES FOR MASTERS STUDENTS**

**3 Lecture Hours · 0 Lab Hours**

Directed study for masters students who have arranged to pursue specific topics of historical inquiry.

### **HIST5391 – INDEPENDENT STUDY**

**3 Lecture Hours · 0 Lab Hours**

For masters students pursuing independent research or study under the supervision of a faculty member.

### **HIST5392 – HISTORICAL PERSPECTIVES ON THE HUMANITIES**

**3 Lecture Hours · 0 Lab Hours**

An historical inquiry into problems and issues of contemporary relevance in the humanistic disciplines. The particular problems and issues investigated will vary with the instructor.

### **HIST5395 – NON-THESIS CAPSTONE**

**3 Lecture Hours · 0 Lab Hours**

Readings in the non-thesis student's final semester, directed by the three-person faculty committee supervising the student's program of work. Required of all non-thesis history M.A. students.



### **HIST5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

For thesis history M.A. students.

### **HIST5644 – ARCHIVAL/PUBLIC HISTORY INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

Work experience for either Archival or Public History students. Archival Certification: Hands-on experience in archives, records centers, or historical manuscripts repositories. Public History: Placement in a history-oriented position in a private or public agency or organization in the community.

### **HIST5655 – PUBLIC HISTORY INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

### **HIST5691 – INDEPENDENT STUDY**

**6** Lecture Hours · **0** Lab Hours

For masters students pursuing independent research or study under the supervision of a faculty member.

### **HIST5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

For thesis history M.A. students.

### **HIST5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

### **HIST6190 – DIRECTED STUDIES FOR PHD STUDENTS**

**1** Lecture Hour · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6191 – INDEPENDENT STUDY**

**1** Lecture Hour · **0** Lab Hours

### **HIST6301 – EXPLORATION AND CARTOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces students to the study of the period of European exploration and the mapping of the New World. Required for all history Ph.D. students.

### **HIST6302 – MIGRATION AND SETTLEMENT**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces students to the study of migration and subsequent settlement of people from Africa and Europe in North and South America from the fifteenth century to the present time. Required for all history Ph.D. students.

### **HIST6303 – REVOLUTIONS AND TRANSFORMATIONS**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces student to the study of the political, economic and cultural revolutions and transformations that occurred within the transatlantic world. Required for all history Ph.D. students.

### **HIST6304 – IDENTITIES AND ENCOUNTERS**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces students to the study of cultural and social contacts between people and societies within the transatlantic world as well as the construction of identities that resulted from these contacts. Required for all history Ph.D. students.

### **HIST6321 – TRANSATLANTIC HISTORY TO 1800**

**3** Lecture Hours · **0** Lab Hours

This seminar allows students to research topics within the field of transatlantic history from its early beginnings in the tenth century to 1800. Required for all history Ph.D. students.

### **HIST6322 – TRANSATLANTIC HISTORY POST 1800**

**3** Lecture Hours · **0** Lab Hours

This seminar allows students to research topics within the field of transatlantic history from 1800 to the present time. Required for all history Ph.D. students.

### **HIST6323 – COLONIALISM AND IMPERIALISM, 1700 - PRESENT**

**3** Lecture Hours · **0** Lab Hours

This seminar allows students to research topics within the field of the history of cartography and geography from 1700 to the present time. Required for all history Ph.D. students.

### **HIST6337 – INTRODUCTION TO TRANSATLANTIC HISTORY TO 1800**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the relevant historiography of pre-1800 transatlantic history. Required for all history Ph.D. students.

### **HIST6338 – INTRODUCTION TO TRANSATLANTIC HISTORY POST 1800**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the relevant historiography of post-1800 transatlantic history. Required for all history Ph.D. students.

### **HIST6390 – DIRECTED STUDIES FOR PHD STUDENTS**

**3** Lecture Hours · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6391 – INDEPENDENT STUDY**

**3** Lecture Hours · **0** Lab Hours

For history Ph.D. students.

### **HIST6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

### **HIST6690 – DIRECTED STUDIES FOR PHD STUDENTS**

**6** Lecture Hours · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6691 – INDEPENDENT STUDY**

**6** Lecture Hours · **0** Lab Hours

For history Ph.D. students.

### **HIST6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

### **HIST6990 – DIRECTED STUDIES FOR PHD STUDENTS**

**9** Lecture Hours · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6991 – INDEPENDENT STUDY**

**9** Lecture Hours · **0** Lab Hours

For history Ph.D. students.

### **HIST6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

### **HIST7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[Art + Art History](#)

[Communication](#)

[Criminology & Criminal  
Justice](#)

[English](#)

[History](#)

[Humanities](#)

[Modern Languages](#)

[Linguistics](#)

[Music](#)

[Philosophy & Humanities](#)

[Political Science](#)

[Sociology and  
Anthropology](#)

[Theatre Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Linguistics

College of Liberal Arts

### Chair Laurel Stvan

Web [ling.uta.edu](http://ling.uta.edu)

Phone 817.272.3133

Fax 817.272.2731

**P403 Hammond Hall**

---

### Degrees / Certificates

#### Master's Degrees

Linguistics, M.A.

Teaching English to Speakers of Other Languages, M.A.

#### Doctoral Degrees

Linguistics, B.A. to Ph.D.

Linguistics, Ph.D.

#### Certificates

Teaching English to Speakers of Other Languages (TESOL) – [Gainful Employment Disclosure](#)

---

### Graduate Faculty

[Suwon Yoon](#)

#### Professor

[Colleen Fitzgerald](#)

[David Silva](#)

#### Associate Professor

[Laurel Stvan](#)

#### Assistant Professor

[Cynthia Kilpatrick](#)

[Joseph Sabbagh](#)

[Jeffrey Witzel](#)

#### Professor Emeritus

[Jerold Edmondson](#)

#### Senior Lecturer

[Naoko Witzel](#)

---

### Graduate Advisors

[Cynthia Kilpatrick](#)

*Teaching English to Speakers of Other Languages, M.A.*

**Joseph Sabbagh**  
*Linguistics, M.A.*

**Jeffrey Witzel**  
*Linguistics, Ph.D.*

---

## Department Information

### Courses

# Department Information

## Objectives

### Degree Requirements

- **Linguistics**
- **Linguistics Degree Plans**
- **TESOL (Teaching English to Speakers of Other Languages)**
  - **TESOL Degree Plans**
  - **Certificate in Teaching English to Speakers of Other Languages (TESOL)**

### Admission Requirements for Graduate Degree Programs in Linguistics

- **Admission Factors**
- **Admission Metrics**

### Special Admissions Requirements for the Graduate Certificate in TESOL

## Objectives

Linguistics is the scientific study of language, investigating the systematic aspects of sound patterns, word formation, sentences, and meaning. The Department of Linguistics and TESOL at the University of Texas at Arlington provides training in both linguistics and TESOL. In terms of linguistics degrees, the Department trains students so that they can describe, analyze and apply theories to data representing the core areas of the field: phonology (sound patterns), syntax (sentence structure), semantics (meaning), and pragmatics (meaning in context). Students receive a foundation that requires courses in theoretical phonology, syntax, semantics, and pragmatics, but there are also opportunities to go build on these areas in terms of language documentation/field linguistics, corpus approaches, and experimental investigations. Many linguistics students pursue additional studies or doctoral concentrations in second language acquisition or work on an understudied or endangered language, areas in which Department faculty have considerable expertise. In terms of TESOL degrees, the programs cover relevant linguistic training, paired with courses in methodology and pedagogy, to equip graduates for professional careers in teaching English to speakers of other languages (TESOL). The TESOL degree programs include practicum and internship components so that students learn the theories that underly the practice, but also receive ample opportunities to put those theories and skills into practice. Required course content includes second language acquisition, the phonological and grammatical structure of English, and curriculum design. There are also several courses where linguistics and TESOL students find their studies intersecting, such as in the second language acquisition or language revitalization courses, which can be used as electives or specialization courses in various degree programs.

The Ph.D. degree provides advanced training in field linguistics and documentary linguistics, in the primary areas of the field in sound, syntax, and meaning, as well as training in corpus linguistics, experimental techniques for investigating language and language documentation. Students will pursue and develop in-depth expertise in at least one area of specialization; see the Department of Linguistics website for possible doctoral specializations based on core faculty expertise.

For further information on graduate degree programs in Linguistics, consult the program's Web site at <http://ling.uta.edu/degrees> or contact the Graduate Advisor.

## Degree Requirements

### Linguistics

Graduate programs in linguistics are primarily designed for those with a background in one or more foreign languages and/or a background in the linguistic aspects of the English language. A graduate career in linguistics may also be appropriate to those with undergraduate study in anthropology, psychology, philosophy, or religion. Applicants without formal training in linguistics are invited to apply, provided that they are prepared to meet the department's requirements for leveling courses.

Requirements for master's and doctoral degrees are given in the Advanced Degrees and Requirements section of this catalog. In addition, the following apply to those pursuing a graduate degree in linguistics:

All students pursuing a graduate degree in linguistics must meet the degree prerequisites (i.e., leveling courses) and must take the core courses appropriate to their degree as published on the department's Web site, <http://ling.uta.edu/degrees>.

### Linguistics Degree Plans

**M.A. Non-Thesis Degree Plan:** 36 hours of graduate-level coursework plus comprehensive examination on the coursework. Students requiring leveling courses must take from three to nine additional hours, for a total of up to 45 hours.

**Ph.D. Degree Plan:** Students entering the Ph.D. program (including those entering as doctoral-bound) must enter having the equivalent of LING 5300/3311, 3330, and 3340. The first semester of the program requires enrollment in LING 5320 and 5330. The doctoral degree requires graduate coursework as follows: 18 hours of linguistic core courses, 12 hours of methods courses, 3 hours of professional development, 6 hours in an area of specialization, 6 hours of seminar courses (separate from other requirements and with at least one in planned area of specialization), 3 hours of dissertation proposal preparation (LING 6391) and 9 hours of dissertation (LING 6999). Students entering with a M.A. in linguistics may be able to waive up to 15 hours, at the discretion of the department, for equivalent courses completed at a B or higher in their master's program.

Theoretical core courses: LING 5320, LING 5321, LING 5330, LING 5331, LING 5345, LING 5347

Methods Courses: LING 5380, LING 5381, LING 6380, LING 6381 (or an approved course in research design or statistics offered by another department)

Professional Development Courses: LING 6300

Seminar requirement: All students must take 6 hours in seminars, using courses from the following list: LING 6390, LING 6392, LING 6393, LING 6394, LING 6395. Students should consult with their advisor in planning choices; at least one seminar must be in area of specialization.

BA-to-PH.D. students must successfully defend their dissertation proposal in order to be granted the M.A. degree in linguistics.

All Ph.D. students must demonstrate knowledge of core areas in linguistics by passing the diagnostic examination requirement outlined on the departmental website.

Doctoral students must satisfy all the coursework requirements of the doctoral program (including specialization and seminar courses) prior to taking courses that do not fulfill the requirements. Any exception to this policy must be approved by a majority vote of the Graduate Studies Committee.

In addition, there are foreign language and professional activities requirements that must be met. Visit <http://ling.uta.edu/degrees/phd-linguistics> for details.

## TESOL (Teaching English to Speakers of Other Languages)

Graduate programs in TESOL are primarily designed for those with a background in English language and literature and/or education. A graduate career in TESOL may also be appropriate to those with undergraduate study in a foreign language, international studies, or community development.

Requirements for master's degrees are given in the Advanced Degrees and Requirements section of this catalog. In addition, the following apply to those pursuing a graduate degree in TESOL:

### TESOL Degree Plans

**M.A. Non-Thesis Degree Plan:** 36 hours of graduate-level coursework plus comprehensive examination on the coursework.

All M.A. TESOL students must demonstrate knowledge of a foreign language prior to unconditional admission to the degree program. Those without such background may pursue study of a foreign language at U.T. Arlington concurrent with probationary enrollment in the M.A. TESOL program.

For additional information on prerequisites or degree requirements, consult the Graduate Advisor.

### Certificate in Teaching English to Speakers of Other Languages (TESOL)

This program provides preparation through study and practice for the individual who wishes to teach English to speakers of other languages. It is available to any student who has been admitted to the Graduate School at U.T. Arlington.

The certificate requires 18 hours of course work: LING 5300, 5301, 5302, 5305, 5310, and 5303 or 5304. In addition to the course work, there is a practicum; this is done under LING 5110. LING 5300 (or equivalent linguistics course work) is a prerequisite for LING 5301, 5302, 5305, and 5310; LING 5301 is a prerequisite for 5303, and 5304. Even if the student presents an equivalency of LING 5300, 5301, and/or other course work, the 18-hour requirement must be met. A maximum of three credit hours of course work done at another institution can be transferred and counted toward the certificate.

Upon beginning study for the certificate, the student should contact the Graduate Advisor in TESOL to declare the intention to earn the certificate.

## Admission Requirements for Graduate Degree Programs in Linguistics

For Admission Requirements for Fall 2010 semester and thereafter, see <http://ling.uta.edu/documents/LINGTESOL-Admissions-Criteria-Effective-Fall-2009.pdf> for a downloadable PDF.

In evaluating candidates for admissions to its graduate degree programs, the Linguistics & TESOL Faculty has adopted a comprehensive approach that is sensitive to the diversity of backgrounds of its applicants. To this end, the following constellation of quantitative and qualitative factors has been established to make explicit the range of criteria upon which admissions decisions will be based. These factors are then applied to the Admission Metrics established for each degree program. (See below for admission requirements for the Graduate Certificate in TESOL.)

### Admission Factors



Admission decisions into a degree program in the Department of Linguistics & TESOL are made on the basis of two types of factors, quantitative and qualitative. PhD applicants must include an academic writing sample.

#### 1. Quantitative Factors

##### a. Grade Point Average (GPA)

- i. For M.A. program applicants, undergraduate GPA is determined by the U.T. Arlington Graduate School.
- ii. For Ph.D. program applicants, GPA is based on all graduate work completed and recorded at the time the applicant submits an application for admission.
- iii. For BA-to-PhD applicants, GPA is on the undergraduate GPA as determined by the U.T. Arlington Graduate School.

b. Graduate Record Examination (GRE) Scores. All applicants are required to submit GRE scores. There are no exceptions. The Department of Linguistics & TESOL evaluates each applicant's sub-scores separately: verbal, quantitative, and analytical.

c. TOEFL Scores (international applications only) Applicants for whom English is not their native language and who have not been granted either an undergraduate or graduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) or IELTS equivalent score. There are no exceptions.

#### 2. Qualitative Factors

a. Letters of Recommendation. Each applicant must present three (3) letters of recommendation that unequivocally indicate that the applicant is prepared for and capable of successful graduate study in linguistics or TESOL at U.T. Arlington. The letters should further indicate that the applicant is capable of completing the appropriate degree program.

b. Statement of intent for academic study in our department. Each applicant must write a statement that explains their plan of study and specialization in our department. The statement will be evaluated on the degree to which it is clear, reasonable, and consistent with the research and teaching agenda of the current faculty in Linguistics & TESOL at U.T. Arlington. Prospective applicants should consider the departmental website and faculty research and teaching areas as they evaluate whether they would be able to accomplish their plan of study in our department, especially if they are applying to the doctoral program. Possible areas of specialization are those outlined at <http://ling.uta.edu/degrees/phd-linguistics>. The statement should also convey a level of commitment and maturity commensurate with the applicant's desired degree goals.

c. Undergraduate Preparation. Applicants to the M.A. in TESOL program should have passed the following three courses or reasonable equivalents as determined by the graduate advisor (U.T. Arlington equivalents are noted in parentheses):

- i. English composition (ENGL 1302)
- ii. A course on English-language literature (ENGL 2319, ENGL 2329)
- iii. The equivalent of a fourth-semester course in a foreign language (SPAN 2314, FREN 2314, etc.). Students whose undergraduate education was delivered in a language other than English are exempt from this requirement.

d. Applicants to the M.A. in Linguistics or Ph.D. in Linguistics programs should have passed the following three courses or reasonable equivalents as determined by the graduate advisor (U.T. Arlington equivalents are noted as in parentheses):



- i. English composition (ENGL 1302)
  - ii. College-level mathematics (MATH 1302)
  - iii. A laboratory science (any 1000-level course in BIOL, CHEM, GEOL or PHYS; LING 5322 may also be used to fulfill this requirement)
- e. Applicants to the Ph.D. and the BA-to-Ph.D in Linguistics programs should present all of the following: evidence of research activity during undergraduate studies; an undergraduate transcript showing coursework which demonstrates that the applicant has passed with a B or higher the following three courses or reasonable equivalents as determined by the graduate advisor (U.T. Arlington equivalents are noted as in parentheses):
- i. Introduction to linguistics (LING 3311/LING 5300)
  - ii. Phonetics and phonology (LING 3330)
  - iii. Morphology and syntax (LING 3340)
- f. Previous Graduate Work (Ph.D. applicants only.) Ph.D. applicants must present at least 30 semester credit hours of previous graduate-level coursework in any field (not necessarily linguistics) and must meet the linguistics course equivalents (LING 3311/5300, LING 3330, LING 3340).
- g. Ph.D. applicants who present fewer than 30 semester credit hours will be assessed based on whether they meet the criteria for unconditional admission for the accelerated Ph.D. in linguistics, and whether their coursework includes the linguistics course equivalents (LING 3311/5300, LING 3330, LING 3340). Such candidates who meet the unconditional admission criterion and who also have passed the three linguistics course equivalents will be considered for the BA-to-PhD program (i.e., "doctoral-bound"). Ph.D. applicants who present fewer than 30 semester credit hours and do not meet the unconditional admission criterion AND also the criterion of passing the three linguistics course equivalents will automatically be considered as applicants to the M.A. Linguistics program.
- h. Writing Sample (required for PhD applicants, optional for other programs): Applicants must submit an academic writing sample (research paper) of 20 pages or less. The paper must be in an area of language or linguistic study, and demonstrate a strong prose style, a solid handle on argumentation, and the ability to do academic research in linguistics or a closely related field.

### Admission Metrics

In formulating a recommendation for admission, the graduate advisors will apply the following admission metrics to each applicant's admission dossier.

#### 1. M.A. in TESOL

- a. Unconditional Admission. Typically, applicants for the M.A. in TESOL will be offered unconditional admission if they meet either of the following two sets of criteria:
  - i. The applicant presents an undergraduate GPA of at least 3.0, a GRE Verbal score of at least 550 (156 on the 2011 or later version), a GRE Quantitative score of at least 450 (141 on the 2011 or later version), a GRE Analytical score of at least 4.5, and a full set of Qualitative Factors.. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.
  - ii. The applicant presents an undergraduate GPA of at least 3.5, a GRE Verbal score of at least 500 (153 on the 2011 or later version), a GRE Quantitative score of at least 400 (140 on the

2011 or later version), a GRE Analytical score of at least 4.0, and a full set of Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.

- b. Probationary Admission. Applicants for the M.A. in TESOL typically present a complete application that has one of the following:
- i. includes a GRE Verbal score of less than 500 (153);; or
  - ii. includes a GRE Quantitative score of less than 400 (140); or
  - iii. includes a GRE Analytical score of less than 4.0; or
  - iv. lacks the undergraduate preparation specified above but who otherwise meet a majority of the remaining admission criteria (including an undergraduate GPA of at least 3.0), will be eligible for probationary admission. Students on probation must:
    - complete any undergraduate courses necessary for unconditional admission during their first two semesters of study; and
    - achieve a GPA of at least 3.3 in the first 9 graduate-level courses taken as an M.A. TESOL student.

## 2. M.A. in Linguistics

- a. Unconditional Admission. Typically, applicants for the M.A. in Linguistics will be offered unconditional admission if they meet either of the following sets of criteria:
- i. The applicant presents an undergraduate GPA of at least 3.0, a GRE Verbal score of at least 450 (150 on the 2011 or later version), a GRE Quantitative score of at least 550 (146 on the 2011 or later system), a GRE Analytical score of at least 4.5, and a full set of acceptable Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.
  - ii. The applicant presents an undergraduate GPA of at least 3.5, a GRE Verbal score of at least 400 (146 on the 2011 or later version), a GRE Quantitative score of at least 500 (144 on the 201a or later system), a GRE Analytical score of at least 4.0, and a full set of acceptable Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.
- b. Probationary Admission. Applicants for the M.A. in Linguistics typically present a complete application that has one of the following:
- i. includes a GRE Verbal score of less than 400 (146); or
  - ii. includes a GRE Quantitative score of less than 500 (144); or
  - iii. includes a GRE Analytical score of less than 4.0; or
  - iv. lacks the undergraduate preparation specified above, but who otherwise meet a majority of the remaining admission criteria (including an undergraduate GPA of at least 3.0), will be eligible for probationary admission. Students on probation must:

- complete any undergraduate courses necessary for unconditional admission during their first two semesters of study; and
- achieve a GPA of at least 3.3 in the first 9 graduate-level credit hours (in LING courses) as an M.A. Linguistics student.

### 3. BA-to-PhD applicants in Linguistics

- a. Unconditional admission. Typically, applicants for the BA-to-Ph.D. in Linguistics program must be admitted unconditionally. Unconditional admission requirements are as follows. The applicant presents an undergraduate GPA of at least 3.6 (on a 4.0 scale) based on upper division course work (junior and senior level or equivalent) in a four year BA in linguistics program or a BA or BS in an allied field. Regardless of degree program, the coursework must include courses equivalent to LING 3330 and LING 3340. In addition, the applicant presents a GRE Verbal score of at least 450, a GRE Quantitative score of at least 550, a GRE Analytical score of at least 4.0, and a full set of excellent Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit a Test of English as a Foreign Language (TOEFL) score of at least 100 iBT, or 250 if computer based, or 600 if paper based (or its IELTS equivalent) and also submit a score from the Test of Spoken English, the Speaking Section of the TOEFL iBT, or the Speaking Section of the IELTS that documents the applicant's proficiency in spoken English. The speaking score is used for making determination for assistantships; applicants who wish to be considered for an assistantship must receive a score of 45 or higher on the TSE, a score of 23 on the Speaking Section of the TOEFL iBT, or a score of 7 on the Speaking Section of the IELTS. This and other requirements for holding an assistantship are described in the [Graduate Assistantship/Associateship Policy](#).

### 4. Ph.D. in Linguistics

- a. Unconditional Admission. Typically, applicants for the Ph.D. in Linguistics will be eligible for unconditional admission if they meet either of the following sets of criteria:
- The applicant presents a graduate GPA of at least 3.3, a GRE Verbal score of at least 500 (153 on the 2011 or later version), a GRE Quantitative score of at least 600 (148 on the 2011 or later version), a GRE Analytical score of at least 4.5, and a full set of excellent Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit scores on the Speaking section of either the Test of English as a Foreign Language (TOEFL) or the IELTS. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit a Test of English as a Foreign Language (TOEFL) score of at least 100 iBT, or 250 if computer based, or 600 if paper based (or its IELTS equivalent) and also submit a score from the Test of Spoken English, the Speaking Section of the TOEFL iBT, or the Speaking Section of the IELTS. that documents the applicant's proficiency in spoken English. The speaking score is used for making determinations for assistantships; applicants who wish to be considered for an assistantship must receive a score of 45 or higher on the TSE, a score of 23 on the Speaking Section of the TOEFL iBT, or a score of 7 on the Speaking Section of the IELTS. This and other requirements for holding an assistantship are described in

the University's [Graduate Assistantship/Associateship Policy](#).

- ii. The applicant presents an undergraduate GPA of at least 3.6, a GRE Verbal score of at least 450 (150 on the 2011 or later version), a GRE Quantitative score of at least 550 (146 on the 2011 or later version), a GRE Analytical score of at least 4.0, and a full set of excellent Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit a Test of English as a Foreign Language (TOEFL) score of at least 100 iBT, or 250 if computer based, or 600 if paper based (or its IELTS equivalent) and also submit a score from the Test of Spoken English, the Speaking Section of the TOEFL iBT, or the Speaking Section of the IELTS. that documents the applicants' proficiency in spoken English. The speaking score is used for making determinations for assistantships; applicants who wish to be considered for an assistantship must receive a score of 45 or higher on the TSE, a score of 23 on the Speaking Section of the TOEFL iBT, or a score of 7 on the Speaking Section of the IELTS. This and other requirements for holding an assistantship are described in the University's [Graduate Assistantship/Associateship Policy](#).

b. Probationary Admission. Applicants for the Ph.D. in Linguistics typically present a complete application that has one of the following:

- i. includes a GRE Verbal score of less than 450 (150);
- ii. or includes a GRE Quantitative score of less than 550 (146); or
- iii. includes a GRE Analytical score of less than 4.0
- iv. lacks the undergraduate preparation specified above but who otherwise meet a majority of the remaining admission criteria (including a graduate GPA of at least 3.3 and for doctoral admissions, presents strong qualitative materials), will be considered for probationary admission. Students on probation must:
  - Deferred Admission Applicants for whom the admission file is incomplete will have a final decision admission deferred. In such cases, a final decision will be made only when the applicant presents a complete admission file.
  - Denial of Admission Applicants who do not meet a majority of the admission standards (both quantitative and qualitative) set forth above will be denied admission. For doctoral admission in particular, qualitative factors such as writing sample, statement of intent, or area of intended work may result in a student being denied admission even when quantitative factors are met.
  - Regarding Provisional Admission: The Department of Linguistics and TESOL does not permit Provisional Admission. All applicants must present a complete set of credentials before their application will be evaluated.

## Special Admissions Requirements for the Graduate Certificate in TESOL

Students wishing to apply to the U.T. Arlington Graduate School solely for the purpose of earning the Graduate Certificate in TESOL must have earned an undergraduate degree at an accredited institution and present an undergraduate GPA of at least 3.0 (as determined by the U.T. Arlington Graduate School). Applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.

Students seeking to transfer from Special Student or Certificate status into a graduate degree program at U.T. Arlington must re-apply to the U.T. Arlington Graduate School as degree-seeking students and meet all published admissions requirements, including those pertaining to standardized tests. No student will be "automatically" or "exceptionally" moved from Special Student or Certificate status into any graduate degree program.

The Web site for the U.T. Arlington Office of Graduate Studies provides additional information about graduate study at U.T. Arlington and about the admission process, including general testing requirements and other paperwork. Students may apply for admission online or request application materials be sent via post.

## LING Courses

### LING5100 – THESIS WRITING SEMINAR

1 Lecture Hour · 0 Lab Hours

Techniques for researching and writing a thesis/dissertation in linguistics. Required of all students who have elected the Thesis or Thesis Substitute degree option in Linguistics. Prerequisite: completion of at least 9 hours of LING courses.

### LING5110 – TESOL PRACTICUM

1 Lecture Hour · 0 Lab Hours

In observing ESOL classes or in teaching learners of ESOL, the student demonstrates ability to apply the principles presented in the TESOL Certificate coursework. Prerequisite: LING 5302 and LING 5305 and permission of instructor.

### LING5190 – CONFERENCE COURSE IN LINGUISTICS

1 Lecture Hour · 0 Lab Hours

Graded P/F. Prerequisite: Permission of instructor.

### LING5300 – LINGUISTIC ANALYSIS

3 Lecture Hours · 0 Lab Hours

This course introduces students to the field of linguistics, the systematic study of human language. Drawing on data from a range of languages, it will examine the sound patterns of language (phonetics and phonology), words and word formation (morphology), sentence structure (syntax), meaning (semantics), and language in context (pragmatics). Emphasis will be placed on methods of linguistic analysis to solve problems in phonology, morphology, syntax, and semantics. May not be used to fulfill M.A. or Ph.D. degree requirements in linguistics

### LING5301 – TEACHING ENGLISH AS A SECOND OR FOREIGN LANGUAGE

3 Lecture Hours · 0 Lab Hours

Presentation and critique of methodologies of teaching English to speakers of other languages, with emphasis on techniques of teaching aural comprehension; speaking, reading, and writing skills; attention to testing, language laboratory, and linguistic-cultural differences.

### LING5302 – METHODS AND MATERIALS FOR TEACHING ENGLISH AS A

## **SECOND OR FOREIGN LANGUAGE**

**3** Lecture Hours · **0** Lab Hours

Systematic study of the application of linguistic theory and findings; emphasis on pedagogical strategies, materials, and tests; attention to current and past research and practices. Prerequisite: LING 5301.

## **LING5303 – CONTRASTIVE ANALYSIS AND ERROR ANALYSIS IN THE TEACHING OF ENGLISH AS A SECOND OR FOREIGN LANGUAGE**

**3** Lecture Hours · **0** Lab Hours

A study of contrastive analysis and error analysis as means of defining student problems and progress; emphasis on current research; application to specific problems and contexts. Prerequisite: LING 5300 and LING 5301.

## **LING5304 – PEDAGOGICAL GRAMMAR OF ENGLISH**

**3** Lecture Hours · **0** Lab Hours

Grammaticality, variation, and acceptability applied to teaching English as a second or foreign language. Problems of description; means of application; adaptation to current pedagogical methods. Prerequisite: LING 5300 and LING 5301.

## **LING5305 – SECOND LANGUAGE ACQUISITION**

**3** Lecture Hours · **0** Lab Hours

Study of the processes of first and second language acquisition, their similarities and differences, language disorders, language perception and production, and implications of language acquisition research for linguistic theory and language teaching. Prerequisite: LING 5300 or permission of instructor.

## **LING5306 – TESOL CURRICULUM DESIGN**

**3** Lecture Hours · **0** Lab Hours

Systematic presentation of elements in development, management and evaluation of TESOL programs. Attention to needs analysis, syllabus design, materials selection and adaptation, teaching and evaluation in language curriculum design. Prerequisite: LING 5301.

## **LING5307 – PEDAGOGICAL PHONOLOGY OF ENGLISH**

**3** Lecture Hours · **0** Lab Hours

A study of the sound system of English. Topics include segmental phonemes, stress, length, intonation and variation at the lexical and utterance levels. Application to teaching English as a second or foreign language. Problems of description; means of application; adaptation to current pedagogical methods. Prerequisite: LING 5300 and LING 5301.

## **LING5310 – SOCIOLINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

The study of language and social context (made up of society and individuals). Content includes language as a social phenomenon, theoretical perspectives on relationship between language, society and individuals, basic concepts in sociolinguistics; and may include topics in macro- and micro-sociolinguistics such as multilingualism, language planning and standardization, linguistic variation, code switching, conversational analysis, and language and gender.

## **LING5311 – SOCIOLINGUISTICS OF SOCIETY**

**3** Lecture Hours · **0** Lab Hours

The study of macro-sociolinguistics, including topics such as multilingualism, language standardization and planning, literacy, language dominance, maintenance and death, language and identity, diglossia, and pidgins and creoles. Prerequisite: LING 5310.

## **LING5312 – LANGUAGE AND GENDER**

**3** Lecture Hours · **0** Lab Hours



The role of language in the expression and creation of gender identities. Gender differences in language structure and use, men's and women's languages in other cultures, the acquisition of gendered ways of speaking, and sexism in language. Prerequisite: LING 5310.

### **LING5313 – TOPICS IN SOCIOLINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Selected topics relating the scientific methodologies of linguistics to larger concerns of society and culture including cognition, motivation, description and analysis. May be repeated for credit when topic changes. Prerequisite: LING 5310.

### **LING5314 – HISTORICAL AND COMPARATIVE LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

The study of language development and change; comparative method and its use in linguistic reconstruction; laws of language change. Prerequisite: LING 3330 or permission of instructor.

### **LING5320 – PHONOLOGICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

Explores the principles governing sound systems in human languages. Prerequisite: LING 3330 or permission of instructor.

### **LING5321 – ADVANCED PHONOLOGICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A continuation of LING 5320. Topics include autosegmental analysis, lexical phonology, metrical phonology and phonological feature geometry. May be repeated for credit when topic changes. Prerequisite: LING 5320.

### **LING5322 – LABORATORY PHONOLOGY**

**3** Lecture Hours · **0** Lab Hours

An investigation into the physical properties of human speech. Students will gain hands-on experience with computer-assisted speech analysis. No prior computer experience is assumed. Prerequisite: LING 5320

### **LING5326 – BILINGUALISM**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to issues related to bilinguals and bilingualism. The areas that will be covered include different types of bilinguals/bilingualism, bilingual education, the cognitive benefits (or disadvantages) of being a bilingual, and language processing in bilinguals. Prerequisite: LING 5300

### **LING5328 – PSYCHOLINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

This course will introduce students to psycholinguistics, or the study of the cognitive processes involved in the acquisition, comprehension, and production of language. The class will focus mainly on language perception and production by native speakers, but will also address issues related to bilingual/second language processing. Prerequisite: LING 5300.

### **LING5330 – FORMAL SYNTAX**

**3** Lecture Hours · **0** Lab Hours

Explores the grammatical structures characteristic of human language by analyzing data from diverse languages within the theoretical framework of formal syntax. Prerequisite: LING 3340 or permission of instructor.

### **LING5331 – ADVANCED FORMAL SYNTAX**

**3 Lecture Hours · 0 Lab Hours**

A continuation of LING 5330. Investigates theoretical controversies in formal syntax and provides extensive opportunity for application in linguistic field work. Prerequisite: LING 5330

### **LING5334 – MORPHOLOGY**

**3 Lecture Hours · 0 Lab Hours**

A theoretical and typological investigation into the nature of word-structure and word-formation processes in human languages. Prerequisite: LING 5320 or LING 5330.

### **LING5335 – LANGUAGE UNIVERSALS AND LINGUISTIC TYPOLOGY**

**3 Lecture Hours · 0 Lab Hours**

Consideration of universals in human language, their explanation and description, and language types. Prerequisite: LING 5330.

### **LING5345 – SEMANTICS**

**3 Lecture Hours · 0 Lab Hours**

Considers meaning with respect to how humans form concepts in terms of semantic features, categorization, prototype imaging, cultural scenes, scripting and coherence within world views. Prerequisite: LING 3340 or permission of instructor.

### **LING5346 – TOPICS IN APPLIED LINGUISTICS**

**3 Lecture Hours · 0 Lab Hours**

### **LING5347 – PRAGMATICS**

**3 Lecture Hours · 0 Lab Hours**

Analysis of how context and form interact with meaning. Topics may include deixis, reference, speech acts, presupposition, implicature, information structure and intonation.

### **LING5350 – TEXT ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Methods of charting and analyzing texts to reveal the systematic contributions of pragmatic choices to their organization and meaning. Prerequisite: LING 3340.

### **LING5360 – NON-WESTERN LINGUISTIC STRUCTURES**

**3 Lecture Hours · 0 Lab Hours**

Study of a selected non-Western language, language family or language area based on descriptive linguistic analysis. May be repeated once for credit as the topic varies. Prerequisite: LING 3330 and LING 3340.

### **LING5361 – READINGS IN NON-WESTERN LINGUISTIC STRUCTURES**

**3 Lecture Hours · 0 Lab Hours**

May not be used to fulfill the non-Western language requirement.

### **LING5362 – LANGUAGE DOCUMENTATION**

**3 Lecture Hours · 0 Lab Hours**

The course discusses fundamental issues that are part of language documenting and description. These include project design, research ethics and intellectual property, researcher and community rights and responsibilities, world language ecology, technology and software, archiving issues, grant-writing fundamentals, and related issues that form best practices for language documentation projects. Prerequisite: LING 5300



### **LING5363 – LANGUAGE ENDANGERMENT AND REVITALIZATION**

**3** Lecture Hours · **0** Lab Hours

This course examines language endangerment and what it means for a language to become endangered, and studies language revitalization. Case studies are presented where communities seek to maintain the number of speakers or revive the language. Also offered as LING 4363. Credit will be granted only once for Ling 4363 or LING 5363. Prerequisite: LING 5300

### **LING5370 – HISTORY OF LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Surveys the recent history of the field of linguistics and familiarizes students with the key figures and theories in recent linguistic history, with special attention to the development and emergence of generative theories of syntax, semantics, and phonology. Prerequisite: LING 5320 or LING 5330.

### **LING5371 – SURVEY OF THEORIES IN APPLIED LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

A comparison and contrast of various linguistic theories, with consideration of their implications for application to real-world problems involving language. Prerequisite: LING 5305.

### **LING5372 – READINGS IN LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topic changes. Prerequisite: LING 5330.

### **LING5380 – FIELD METHODS**

**3** Lecture Hours · **0** Lab Hours

The principles, techniques and practical aspects of linguistic field research. The course includes extensive practice in eliciting data (phonological, morpho-syntactic, textual and lexical) directly from a native speaker, as well as in managing, analyzing and describing the data obtained. Course may be repeated for credit when topic changes. Prerequisite: LING 5300. Permission of the Graduate Advisor.

### **LING5381 – CORPUS LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Applications of ways in which computer science and linguistics inform each other. Corpus linguistics focuses on how computers can be used to both obtain the data that we examine and to provide the tools we use for analysis. Includes readings, practical experience with several different software programs, and using sources of online corpora.

### **LING5391 – CONFERENCE COURSE IN LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

### **LING5392 – THESIS SUBSTITUTE**

**3** Lecture Hours · **0** Lab Hours

### **LING5393 – TESOL TEACHING AND OBSERVATION**

**3** Lecture Hours · **0** Lab Hours

In teaching learners of ESOL and observing ESOL classes, the student demonstrates ability to apply the principles presented in the M.A. TESOL coursework. Prerequisite: LING 5302 and LING 5305 and permission of instructor.

### **LING5395 – GRADUATE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Employment (paid or unpaid) supervised by a faculty internship coordinator, with the student performing duties related to the academic curriculum of linguistics and/or TESOL. Students are required to submit an approved academic project related to the work performed. May be repeated with approval of Graduate Advisor.

### **LING5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **LING5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **LING5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

### **LING6191 – RESEARCH IN LINGUISTICS**

**1** Lecture Hour · **0** Lab Hours

Prerequisite: permission of instructor.

### **LING6199 – DISSERTATION**

**1** Lecture Hour · **0** Lab Hours

### **LING6291 – RESEARCH IN LINGUISTICS**

**2** Lecture Hours · **0** Lab Hours

Prerequisite: permission of instructor.

### **LING6300 – PROFESSIONAL WRITING SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: Completion of at least 9 hours of LING courses.

### **LING6360 – DISCOURSE THEORY SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: permission of instructor.

### **LING6380 – FIELD METHODS SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Course may be repeated for credit when topic changes. Prerequisite: LING 5380. Permission of the Graduate Advisor.

### **LING6381 – RESEARCH DESIGN AND STATISTICS**

**3** Lecture Hours · **0** Lab Hours

Practical training in methodologies and analytical techniques common in linguistic research. Topics include qualitative vs. quantitative data analysis, questionnaire design and administration, laboratory protocol, field protocol, population sampling, statistical analysis, and research ethics.

### **LING6390 – LINGUISTICS SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Course may be repeated for credit when topic changes. Prerequisite: permission of instructor.

### **LING6391 – RESEARCH IN LINGUISTICS**

3 Lecture Hours · 0 Lab Hours

Prerequisite: permission of instructor.

### **LING6392 – SEMINAR IN PHONETICS AND PHONOLOGY**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of phonetics and/or phonology. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5321 or permission of the instructor.

### **LING6393 – SEMINAR IN SYNTAX**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of syntax. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5331 or permission of instructor.

### **LING6394 – SEMINAR IN SEMANTICS AND PRAGMATICS**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of meaning: semantics and/or pragmatics. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5345 or 5347 or permission of instructor.

### **LING6395 – SEMINAR IN SECOND LANGUAGE ACQUISITION**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of second language acquisition. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5305 or permission of the instructor.

### **LING6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

### **LING6491 – RESEARCH IN LINGUISTICS**

4 Lecture Hours · 0 Lab Hours

Prerequisite: permission of instructor.

### **LING6591 – RESEARCH IN LINGUISTICS**

5 Lecture Hours · 0 Lab Hours

### **LING6691 – RESEARCH IN LINGUISTICS**

6 Lecture Hours · 0 Lab Hours

Prerequisite: Permission of instructor.

### **LING6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

## LING6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

## LING7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Modern Languages

College of Liberal Arts

### Chair Christopher Conway

### Chair Antoinette Sol

Web [www.uta.edu/modl/](http://www.uta.edu/modl/)

Phone 817.272.3161

Fax 817.272.5408

230 Hammond Hall

### Degrees / Certificates

#### Master's Degrees

Modern Languages, M.A. (Spanish or French Concentration)

#### Certificates

Modern Languages, French Certificate

Modern Languages, Spanish Certificate

### Graduate Faculty

#### Associate Professor

- [Jinny Choi](#)
- [Christopher Conway](#)
- [Raymond Elliott](#)
- [Aimee Israel-Pelletier](#)
- [Lana Rings](#)
- [Ignacio Ruiz-Perez](#)
- [Antoinette Sol](#)
- [Kimberly van Noort](#)

#### Assistant Professor

- [Amy Austin](#)
- [Sonia Kania](#)
- [Christopher Stewart](#)
- [Sonja Watson](#)

### Graduate Advisors

#### [Amy Austin](#)

- Modern Languages, French Certificate*
- Modern Languages, M.A. (Spanish or French Concentration)*
- Modern Languages, Non-Degree Seeking*
- Modern Languages, Spanish Certificate*

## Department Information

### Courses

# Department Information

### Objectives

#### Admission Standards

- **Unconditional Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Fast Track Program in Modern Languages**
- **Fellowships**
- **Teaching Assistantships**

#### Degree Requirements

- **Modern Languages (French Spanish)**

### Objectives

Graduate programs in modern languages are designed to enhance students' competence in the language and literature of their major language field. Specific objectives are to prepare students for a career in teaching or in any area in private or public life in which knowledge of a modern language is essential and to help them develop the techniques of independent research necessary for work beyond the master's level.

### Admission Standards

In compliance with HB 1641, the UT Arlington Department of Modern Languages does not use unwritten criteria, it does not assign a specific weight to any one factor being considered, and it does not use standardized tests (i.e., the GRE) in the admissions or competitive fellowship or scholarship process as the sole criterion for consideration or as the primary criterion to end consideration of an applicant to the M.A. program. However, the GRE is required and it is used as a criterion, without specific weight, in the Department's evaluation of candidates for admission to programs at each of three levels: Unconditional, Provisional, and Probationary Admission.

The Department wishes to be as thorough and fair as possible in evaluating applicants for admission. It recognizes that some applicants may appear to be stronger according to some criteria than according to other criteria. When an applicant does not completely meet the minimum expectations for Unconditional Admission, the Department considers the applicant for possible Provisional or Probationary Admission. When the applicant is not granted any of the three levels of admission, the decision may be deferred or the application is denied. We do not wish to exclude a qualified and potentially successful candidate who perhaps has approached but not met all the criteria completely. However, we do not wish to admit candidates who, based on the criteria, are deemed to have a poor chance of successfully completing the graduate program.

### Unconditional Admission

The criteria for admission below are used, without specific weights, as positive indicators of potential success in the program. All four criteria for unconditional admission must be met in order to receive unconditional admission.

- degree in the language to be studied of 18 upper level hours in the language or equivalent [1]
- 3.0 undergraduate GPA (last 60 hours)
- submission of GRE scores [2]
- 3 letters of recommendation (from faculty if possible) sent to the Department of Modern Languages Graduate Advisor.

[1] A student with a bachelor's degree in a field other than French or Spanish may become an unconditionally admitted graduate student after fulfilling the upper level requirements in the language:

18 hours of upper level Spanish, or French or a combination of coursework and testing.

(A person with a bachelor's degree in a major other than French or Spanish must have the equivalent of 18 hours of upper level French or Spanish in order to become a master's student. The equivalency may take one of the following forms: A student may obtain 18 hours at the 3000 and 4000 level, or s/he may attempt to test out of nine hours of grammar, composition, and conversation. If a student tests out of grammar, composition, and conversation, s/he must take nine hours of literature, in order to demonstrate ability to do literary studies).

[2] Under specific circumstances the GRE may be waived for those who received their B.A. from UT Arlington. See GRE Waiver or Advanced Admission. International students must also take the TOEFL test and score 550 on the paper-and-pencil test or 213 on the computerized test, in order to qualify for unconditional admission.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### Deferred Admission

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### Fast Track Program in Modern Languages

The Fast Track Program allows outstanding undergraduate students in French or Spanish at UT Arlington to take up to three graduate seminars in Spanish or French that will earn credit toward both the Bachelor's degree and the Master's degree in Modern Languages. It is designed to encourage high standards of performance, to facilitate the transition from undergraduate to graduate study, and to reduce time needed to complete the MA . Interested undergraduate students should apply for the Fast Track Program when they are within 30 hours of completing the Bachelor's degree. To qualify, students must have completed at least 30 hours at UTA with a GPA of 3.0 in all courses and 3.25 in the last 30 hours. Before entering the Fast Track, students must also have completed the four required core courses in the French or Spanish major with a GPA of at least 3.50. Additionally, they must have already completed at least two additional 3000-4000 level courses in either French or Spanish, excluding International Business and/or translation courses, with a GPA of 3.5 or higher.

Students who successfully complete the Fast Track Program will be admitted automatically to the Graduate School to continue their graduate work in the Modern Languages MA Program once the Bachelor's degree is awarded. They will not be required to take the GRE, complete an additional application for admission to the Graduate School, supply letters of recommendation, or pay an application fee. An undergraduate student completing the maximum of nine graduate hours would be admitted to the Modern Languages MA Program with only five additional courses and a thesis remaining to complete the requirements for the thesis option.

To remain in the Fast Track Program, students must receive no grade lower than a B in any

graduate seminars taken as an undergraduate, selected with the advice and approval of the Modern Languages Graduate Advisor. Undergraduate students who do not maintain grades of B or A in the graduate courses taken will be unable to continue in the Fast Track Program but, if the courses are completed passing, will still receive credit toward their undergraduate degree requirements. Students originally denied entry into the Fast Track Program, discontinued after provisional admission, subsequently dropped or opting out are still welcome to apply to the Modern Languages MA Program in the usual way and will be considered without prejudice.

For an application form or to obtain more details about this program, contact the Modern Languages Graduate Advisor.

### Fellowships

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Graduate School Master's Fellowship in Modern Languages will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.
- The minimum undergraduate GPA requirement is 3.0, as calculated by the Graduate School, plus as GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in French or Spanish (or appropriate related field) from an accredited institution.
- Three letters of recommendation.
- A written statement explaining the applicant's reasons for graduate study in Spanish.

### Teaching Assistantships

Teaching assistantships are available for graduate students in the Department of Modern Languages. Graduate students who obtain teaching assistantships are urged to take MODL 5305 Methods of Modern Language Teaching.

### Degree Requirements

In addition to the Graduate School requirements for Master's degree programs, the following requirements apply in the Department of Modern Languages:

**Thesis:** A written comprehensive examination may be given at the discretion of the student's committee.

**Thesis Substitute:** There will be a comprehensive examination on the coursework and appropriate reading list. An oral defense of the thesis substitute may be required at the discretion of the student's supervising committee. At least 30 hours must be in coursework.

**Non-thesis:** There will be a comprehensive written examination on the coursework, an appropriate reading list, as well as an oral exam.

### Modern Languages (French; Spanish)

Those wishing to major in a modern language or literature must upon admission have a baccalaureate degree with a major in that modern language or have a minimum of 18 advanced hours, or the equivalent in language proficiency and course content.

Modern Languages (French; Spanish) Students pursuing the M.A. in Modern Languages with concentration in French or in Spanish are required to take a minimum of 9 hours in the core MODL courses along with 27 hours in their concentration or alternatively a maximum of 12 hours in the core MODL courses and 24 hours in their concentration. All students are required to take MODL 5304.

A knowledge of a second foreign language will be required, including listening, speaking, reading and writing skills as demonstrated by the successful completion of two semesters of coursework at the second-year level, MODL 5301, or by an appropriate examination.



## FREN Courses

### FREN5101 – TEACHING PRACTICUM I

1 Lecture Hour · 0 Lab Hours

Required of all teaching assistants in French in their first semester. May not be counted toward a master's degree. Graded P/F/R.

### FREN5102 – TEACHING PRACTICUM II

1 Lecture Hour · 0 Lab Hours

Required of all teaching assistants in French in their second semester. May not be counted toward a master's degree. Graded P/F/R.

### FREN5314 – ADVANCED STYLISTICS

3 Lecture Hours · 0 Lab Hours

Focuses on advanced problems of grammar and style, including syntax, morphology, semantics and stylistics. Surveys the history of the French language, including influences of other languages and cultures on its evolution. Attention given to pedagogical models and approaches as well as intensive composition practices.

### FREN5316 – MEDIEVAL AND RENAISSANCE LITERATURE AND CULTURE

3 Lecture Hours · 0 Lab Hours

A study of the main currents of French literature and culture in their social, economic and political context through the representative genres of the period: epic verse, poetry, tales, fables, comic narrative, and theatre to name a few.

### FREN5317 – 17TH AND 18TH CENTURY LITERATURE AND CULTURE

3 Lecture Hours · 0 Lab Hours

A study of the main currents of French literature and culture in their social, economic and political context through the representative genres of the period: theatre, the romance, the novel, the portrait and maxim, the philosophic dialogue and tale, among others.

### FREN5318 – 19TH AND 20TH CENTURY LITERATURE AND CULTURE

3 Lecture Hours · 0 Lab Hours

A study of the main currents of French literature and culture in their social, economic and political context through the representative genres of the period: theatre, the nouvelle, poetry, the novel, the anti-novel, etc.

### FREN5320 – TOPICS IN FRENCH LANGUAGE & LINGUISTICS

3 Lecture Hours · 0 Lab Hours

Special studies in French language and linguistics not ordinarily covered by regular course offerings. Topics may include "Socio-Phonetics," "French Phonetics and Phonology," and "History of the French Language." May be repeated for credit when content changes.

### FREN5321 – TOPICS IN GENRES OF THE 17TH CENTURY

3 Lecture Hours · 0 Lab Hours

Investigates ideology and practice through literature, the visual arts, music and other cultural "texts." Major topics may include "Versailles: Architecture, Literature, and Politics," "Jansenism and its Discontents: Pascal, Racine, de Lafayette," "Libertins: Masks and Counter Masks." May be repeated for credit when topic changes.

### **FREN5325 – TOPICS IN GENRES OF THE 18TH CENTURY**

**3** Lecture Hours · **0** Lab Hours

Studies oppositional discourse as expressed through the different genres (theatre, poetry, fiction, political and philosophical writings) popular in the 18th century as well as the role and the effect of these works in constituting the Republic of Letters. May be repeated for credit when topic changes.

### **FREN5330 – TOPICS IN GENRES OF THE 19TH CENTURY**

**3** Lecture Hours · **0** Lab Hours

Concentrates on literature, the visual arts, entertainment, and fashion as expressions of popular culture. The rise of the "petite bourgeoisie,"; social utopias, the rebuilding of Paris, and responses to modernity will be studied in such courses as "Paris and Its Subcultures," Impressionism and the Bourgeoisie," "The Novel and the Body." May be repeated for credit when topic changes.

### **FREN5331 – TOPICS IN GENRES OF THE 20TH CENTURY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the work of French and Francophone writers in the light of modernist and post-modernist aesthetics. Literature, art, architecture, music, film, video, television, and other forms of popular production are studied as reflections of an era in crisis. May be repeated for credit when topic changes.

### **FREN5338 – TOPICS IN FRENCH CULTURE**

**3** Lecture Hours · **0** Lab Hours

Survey of themes and structures on a range of topics such as "Women in/as Fiction," "Self and Society," & "Revolutions," "French Film." May be repeated for credit when topic changes.

### **FREN5391 – CONFERENCE COURSE IN FRENCH LINGUISTICS, CULTURE, OR LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Graded R. Prerequisite: permission of Graduate Advisor. Course may be repeated for credit when the topic changes.

### **FREN5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **FREN5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **FREN5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

### **FREN6310 – FRENCH STUDIES**

**3** Lecture Hours · **0** Lab Hours

## **GERM Courses**

### **GERM5101 – TEACHING PRACTICUM I**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in German in their first semester. May not be counted toward a master's degree.

### **GERM5102 – TEACHING PRACTICUM II**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in German in their second semester. May not be counted toward a master's degree.

### **GERM5304 – TOPICS IN GERMAN LANGUAGE AND LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

May include topics such as history of the German language, applied German linguistics, dialectology, Middle High German. May be repeated for credit when topic changes.

### **GERM5312 – ADVANCED GERMAN GRAMMAR AND STYLE**

**3** Lecture Hours · **0** Lab Hours

Readings of samples of contemporary German prose, both narrative and expository, as a basis for the writing of exercises and essays stressing application of grammatical and stylistic principles.

### **GERM5320 – TOPICS IN GERMAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours

May include topics from any period, genre, or author of literature in German. May be repeated for credit when topic changes.

### **GERM5331 – TOPICS IN GERMAN NARRATIVE, 1700 TO PRESENT**

**3** Lecture Hours · **0** Lab Hours

The novel, Novelle, short story and other forms of German prose: historical overview, theory and selected primary texts as illustration. Topics vary in focus and methodology; emphasis ranges from individual authors, works or themes to theoretical or interdisciplinary issues. May be repeated for credit when topic changes.

### **GERM5332 – TOPICS IN OLDER GERMAN LITERATURE, TO 1700**

**3** Lecture Hours · **0** Lab Hours

Topics vary in focus and methodology; emphasis may range from individual authors, works, or themes to theoretical or interdisciplinary issues. May be repeated for credit when topic changes.

### **GERM5333 – TOPICS IN GERMAN DRAMA**

**3** Lecture Hours · **0** Lab Hours

History and theory of the drama in German-speaking countries; methods of drama analysis, interrelationship of drama, theatre, audience. Topics vary in focus and methodology, emphasis may range from individual authors, works, themes, or periods to theoretical or interdisciplinary issues. May also include the study of German film. May be repeated for credit when topic changes.

### **GERM5334 – TOPICS IN GERMAN POETRY**

**3** Lecture Hours · **0** Lab Hours

Study of the development of German poetry, and a close study of representative poets and poems from the beginnings to the present. Focus on selected poetic forms including the folk song, ballad, epic poem, sonnet, and religious and political poetry. Topics may vary in focus and methodology. May be repeated for credit when topic changes.

### **GERM5391 – CONFERENCE COURSE IN GERMANIC LINGUISTICS AND LITERATURE**

**3** Lecture Hours · **0** Lab Hours

### **GERM5398 – THESIS**

3 Lecture Hours · 0 Lab Hours

### **GERM5698 – THESIS**

6 Lecture Hours · 0 Lab Hours

### **GERM5998 – THESIS**

9 Lecture Hours · 0 Lab Hours

## **MODL Courses**

### **MODL5300 – HISTORY OF THE FRENCH LANGUAGE**

3 Lecture Hours · 0 Lab Hours

Development of the French language from its earliest forms to the present. Required for the MA in MODL with French concentration.

### **MODL5301 – MODERN LANGUAGES FOR GRADUATE READING**

3 Lecture Hours · 0 Lab Hours

An intensive one-semester course designed for Ph.D. candidates and other graduate students to fulfill departmental foreign language requirements. Sections may be offered in French, German, Russian, or other applicable or appropriate languages. Does not fulfill any graduate degree requirements.

### **MODL5302 – TOPICS ACROSS THE LANGUAGES**

3 Lecture Hours · 0 Lab Hours

This topic course varies in focus and will be taught by in-house faculty or visiting scholars. Taught in English, it will consider issues to cultural and literary concerns across the languages. Possible course offerings include: From Novel to Film, History and/as Literature, Propaganda as Literature, The History and Aesthetics of Film, The Other in Literature and Culture, Freud and the Literary Imagination, and Modernism.

### **MODL5304 – CURRENTS IN EUROPEAN AND LATIN AMERICAN LITERATURES AND THOUGHT**

3 Lecture Hours · 0 Lab Hours

An examination of the mainstream genres and movements in European and Latin American literatures from 1600 to the present. Taught in English. Required for MA students in Modern Languages. May not be repeated for credit.

### **MODL5305 – METHODS OF MODERN LANGUAGE TEACHING**

3 Lecture Hours · 0 Lab Hours

Methods of Modern Language Teaching is an applied linguistics course for modern language professionals, focusing on the application of research and theory in linguistics and second language acquisition to the classroom setting. May include specific methods, language learning strategies, cooperative language learning, component and performance skills, and intercultural communication.

### **MODL5306 – L2 ACQUISITION**

3 Lecture Hours · 0 Lab Hours

### **MODL5307 – TOPICS IN SECOND LANGUAGE ACQUISITION**

3 Lecture Hours · 0 Lab Hours

May include topics in the areas of second language acquisition, methodologies, culture, and disciplines related to second language acquisition. May be repeated for credit as topics change.

### **MODL5308 – TECHNOLOGY AND LANGUAGE INSTRUCTION**

**3** Lecture Hours · **0** Lab Hours

Presentation and critique of research regarding the use of electronic media in language instruction; emphasis on computer and video, with attention to the application of research findings to the language classroom.

### **MODL5309 – TRANSLATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Provides an introduction to basic concepts and offers a general conceptual framework for the study of translation theory. Students acquire the tools to identify, analyze and resolve translation problems while developing a rational approach to translation. (Following the completion of this course, students are encouraged to enroll in FREN 5309, GER 5309 or SPAN 5309, Practicum in Translation.)

### **MODL5310 – THEORIES OF LITERATURE AND CULTURE**

**3** Lecture Hours · **0** Lab Hours

Readings, analyses, and applications of recent literary and cultural theories. Particular attention to how such theories may serve to focus or refocus literature as cultural production. Required for the M.A. in French, German, and Spanish.

### **MODL5391 – CONFERENCE**

**3** Lecture Hours · **0** Lab Hours

## **SPAN Courses**

### **SPAN5101 – TEACHING PRACTICUM I**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in Spanish in their first semester. May not be counted toward a master's degree. Graded P/F/R

### **SPAN5102 – TEACHING PRACTICUM II**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in Spanish in their second semester. May not be counted toward a master's degree. Graded P/F/R.

### **SPAN5190 – CONFERENCE COURSE IN SPANISH LANGUAGE AND LITERATURE**

**1** Lecture Hour · **0** Lab Hours

Graded P/F/R.

### **SPAN5300 – HISTORY OF THE SPANISH LANGUAGE**

**3** Lecture Hours · **0** Lab Hours

Development of the Spanish language from its earliest forms to the present. Required for the MA in Spanish and the MA in Humanities with Spanish concentration.

### **SPAN5302 – SPANISH DIALECTOLOGY**

**3** Lecture Hours · **0** Lab Hours

Phonological, lexical, and grammatical features in Iberia, South and North America, the Philippines, and in

Sephardic dialect.

### **SPAN5303 – APPLIED SPANISH LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Pedagogy, pronunciation and orthography, morphology, syntax, semantics, and culture. Required for the MA in Spanish and the MA in Humanities with Spanish concentration unless 5302 taken.

### **SPAN5310 – TOPICS IN PENINSULAR SPANISH LITERATURE AND CULTURE TO THE EIGHTEENTH CENTURY**

**3** Lecture Hours · **0** Lab Hours

Topics may include: Medieval Spanish literature and culture, Golden Age Spanish literature and culture, or any particular movement, genre, work or author prior to the eighteenth century. May be repeated for credit when content changes.

### **SPAN5311 – TOPICS IN PENINSULAR SPANISH LITERATURE AND CULTURE, EIGHTEENTH CENTURY TO THE PRESENT**

**3** Lecture Hours · **0** Lab Hours

Topics may include: Neoclassic peninsular Spanish literature and culture, peninsular Spanish literature and culture of the Romantic period, Realist or Naturalist Spanish literature and culture, peninsular Spanish literature and culture since 1900, as well as any particular movement, genre, work or author from the eighteenth century to the present. May be repeated for credit when content changes.

### **SPAN5313 – TOPICS IN HISPANIC LITERATURE AND CULTURE**

**3** Lecture Hours · **0** Lab Hours

Special studies in areas not ordinarily covered by regular course offerings. Different topics may be repeated for credit.

### **SPAN5314 – TOPICS IN SPANISH-AMERICAN LITERATURE AND CULTURE TO MODERNISM**

**3** Lecture Hours · **0** Lab Hours

Topics may include: Colonial Spanish-American literature and culture, pre-modern Spanish-American literature and culture, Spanish-American literature and culture of the Enlightenment, or any particular movement, genre, work or author prior to Modernism. May be repeated for credit when content changes.

### **SPAN5315 – TOPICS IN CONTEMPORARY SPANISH-AMERICAN LITERATURE AND CULTURE, MODERNISM TO THE PRESENT**

**3** Lecture Hours · **0** Lab Hours

Topics may include: Spanish-American literature and culture of Modernism, modern Spanish-American literature and culture, or any particular movement, genre, work or author from Modernism to the present. May be repeated for credit when content changes.

### **SPAN5317 – U.S. LATINO LITERATURE AND CULTURE**

**3** Lecture Hours · **0** Lab Hours

Readings of poetry, theater, and prose in relation to the specific socio-historical and political context of U.S. Latino life. Charts changing concepts of cultural identity and the evolution of cultural coding in texts written after 1960.

### **SPAN5318 – MEXICAN LITERATURE AND CULTURE**

**3** Lecture Hours · **0** Lab Hours

Readings in all Mexican literary genres from various critical perspectives. Particular attention given to the novel, poetry, and essay of the 20th Century and to interrelationships between text and culture.

### **SPAN5320 – TOPICS IN SPANISH LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Special studies in linguistics not ordinarily covered by regular course offerings. May be repeated for credit when content changes.

### **SPAN5327 – WOMEN IN HISPANIC LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Readings of literary texts by women writers from medieval Spain to contemporary Spanish America. Attention to recurrent motifs as well as to the literary expression of historical and cultural transformation.

### **SPAN5330 – ADVANCED STUDIES IN SPANISH LINGUISTICS I**

**3** Lecture Hours · **0** Lab Hours

Topics may include: sociolinguistics, bilingualism, modern Spanish dialectology, as well as a detailed study on any one dialect or regional dialect of contemporary Spanish. May be repeated for credit when content changes.

### **SPAN5332 – ADVANCED STUDIES IN SPANISH LINGUISTICS II**

**3** Lecture Hours · **0** Lab Hours

Topics may include: Old Spanish, Spanish philology, Spanish text linguistics, and Old Spanish dialectology, as well as a detailed study of any one dialect or regional dialect of Spanish. May be repeated for credit when content changes.

### **SPAN5366 – SPANISH FOR SCHOOL ADMINISTRATORS AND TEACHERS**

**3** Lecture Hours · **0** Lab Hours

Development of Spanish proficiency for teachers and administrators through an immersion approach. Emphasis on concepts and terminology related to education, program administration, community involvement and communication with Spanish-speaking parents. This course can be repeated.

### **SPAN5391 – CONFERENCE COURSE IN SPANISH LINGUISTICS AND LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Graded R.

### **SPAN5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **SPAN5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **SPAN5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)

# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[Art + Art History](#)

[Communication](#)

[Criminology & Criminal  
Justice](#)

[English](#)

[History](#)

[Humanities](#)

[Modern Languages](#)

[Linguistics](#)

[Music](#)

[Philosophy & Humanities](#)

[Political Science](#)

[Sociology and  
Anthropology](#)

[Theatre Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Music

College of Liberal Arts

### Chair Rick Bogard

Web [www.uta.edu/music/](http://www.uta.edu/music/)

Email [music@uta.edu](mailto:music@uta.edu)

Phone 817.272.3471

Fax 817.272.3434

[101 Fine Arts Bldg](#)

---

### Degrees / Certificates

#### Master's Degrees

Music Performance, M.M. Non Thesis

Music Performance, M.M. Thesis

Music, M.M.

#### Certificates

Performance Certificate

Performance-CT KBS (Organ)

Performance-CT KBS (Piano)

Performance-CTKBS(Harpsichord)

---

### Graduate Faculty

[Sarah Frisof](#)

[David Grogan](#)

#### Department Chair

[Rick Bogard](#)

#### Professor

[John Burton](#)

[Linton Powell](#)

[Jing Tam](#)

#### Associate Professor

[Daniel Cavanagh](#)

[George Chave](#)

[Sergio Espinosa](#)

[Graham Hunt](#)

[Timothy Ishii](#)

[Carol Jessup](#)

[Karen Kenaston-French](#)

[Soo Kim](#)

[Diane Lange](#)

[John Solomons](#)

[Douglas Stotter](#)

[Michael Varner](#)



**Martha Walvoord**

**Assistant Professor**

**Sean Atkinson**  
**Young-Hyun Cho**  
**Clifton Evans**  
**Christopher Pool**

---

## Graduate Advisors

**Clifton Evans**

*Music Performance, M.M. Thesis*  
*Music, M.M.*

---

## Department Information

### Courses

# Department Information

## Music Education

- **Degree Requirements - Master of Music in Music Education**
- **Admission**

## Master of Music in Music Performance

- **Admission Requirements**

## Certificate in Performance

- **Certificate Admission Requirements**
- **TOEFL Requirement**

## Fellowships

## Final Master's Examination

## Music Education

The Master of Music in Music Education curriculum is designed to impart the knowledge needed to facilitate successful careers and encourage personal development. Through further education, music teachers will become more articulate, reflective practitioners so that they are able to select, adapt, adjust, and assess teaching and learning expectations.

More specifically, the aims of the degree are to:

- improve teaching skills through advanced coursework and research;
- offer graduate courses to improve general musicianship, including performance, theory, and music history;
- prepare students to enter graduate programs leading to the doctoral degree;
- offer highly specialized courses for students interested in researching historical, education or artistic areas;
- provide advanced courses for qualified members of the community.

## Degree Requirements - Master of Music in Music Education

The program is designed for the student who has a Bachelor's degree in music. A person with a bachelor degree in a major other than music must have the equivalent of 18 hours of upper level music courses and may be asked to complete a Music Theory Barrier exam. The Graduate Advisor for program studies will counsel the student in correcting deficiencies and selecting courses for the student's degree program. A minimum of 30 semester hours is required if the student chooses to write a thesis. If the student chooses not to write a thesis, a minimum of 36 semester hours is required. Advisory examinations in music history and written theory will be administered to all students prior to enrollment or during their first semester as a degree-seeking student.

Coursework for the program includes 15 core hours: Form and Style Analysis (MUSI 5301); one class from Selected Topics in Music History (MUSI 5308); Philosophical Foundations of Music Education (MUSI 5351); and Psychological Foundations of Music Education (MUSI 5352); and Introduction to Music Research (MUSI 5363). Students following the thesis option will take three hours of music education electives and an additional six hours of free choice electives. Students following the non-thesis option will take six hours of music education electives and an additional 12 hours of free choice electives.

Music education electives may be chosen from the following: Selected Topics in Music Pedagogy (MUSI 5350); Current Trends in Music Education (MUSI 5331); Selected Topics in Music Literature (MUSI 5354); Rehearsal Techniques (MUSI 5355); Advanced Diction for Singers (MUSI 5359); Advanced Technology for Musicians (MUSI 5350); Elementary Music (MUSI 5361); and Historical Foundations and Curricular Trends in Music Education (MUSI 5364). Free choice electives may be selected from ensembles, private instruction, music history, music theory, jazz studies and repeated special topics courses. Up to six hours of graduate credit from other disciplines may be considered if relevant to the degree, subject to approval by the Graduate Studies Committee. Students following the non-thesis option will enroll in at least one semester of Project in Music Education (MUSI 5353). Students who choose to write a thesis (MUSI 5398, 5698) will work closely with one or more members of the graduate faculty from the Department of Music on a research project in a specialized area of interest within the music education field.

### Admission

The Department of Music has the following requirements for entry into the Master of Music in Music Education Degree.

#### Unconditional Admission

Requirements for unconditional admission into the program are:

1. Three letters of recommendation speaking to the student's potential for success from references familiar with the student's academic background.
2. A minimum 3.0 GPA in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. Bachelor's degree in music or its demonstrated equivalent.

#### Probationary Status

A student meeting two out of three criteria and showing promise for successful graduate study may still be admitted on probationary status upon the recommendation of the Graduate Studies Committee. Within probationary status, said student will be admitted unconditionally into the degree program upon completion of 12 hours of graduate study with no grade lower than a B.

#### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

#### Deferred Admission

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

Admission will be denied for students not meeting at least two of the three criteria. Applicants may reapply for admission if the deficiencies in credentials that led to denial are remedied.

### **TOEFL Requirement**

Applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL) or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:

- Writing: 22
- Speaking: 21
- Reading: 20
- Listening: 16

**Those who do not meet the English proficiency requirement must satisfactorily complete courses in the ESOL area, as approved by the program and the Graduate School.**

## **Master of Music in Music Performance**

Majors are offered in Instrumental Studies, Voice Studies, Jazz Studies, and Conducting. The program is designed for the student who has a Bachelor's degree in music. A person with a bachelor degree in a major other than music must have the equivalent of 18 hours of upper level music courses and must score a 75% or better on the Music Theory Barrier exam. The Graduate Advisor for program studies will counsel the student in correcting deficiencies and selecting courses for the student's degree program. Advisory examinations in music history and written theory can be administered to all students prior to enrollment or during their first semester as a degree-seeking student.

Coursework for the program includes 28 core hours: Form and Style Analysis (MUSI 5301); Selected Topics in Music History (MUSI 5308); Selected Topics in Music Literature (MUSI 5354); Introduction to Music Research (MUSI 5363); 4 semesters of Applied Study (MUSI 53XX) with the last semester including a full length recital; and 4 semesters of a Major Ensemble (MUSI 51XX).

The coursework also includes 6 credit hours of electives to be chosen from the following depending on your major:

### **Instrumental**

*Prescribed Electives (choose 6 credit hours)*

- MUSI 3394 - Digital Music Technology
- MUSI 5112 - Chamber Music (maximum of 3 repeats)
- MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)
- MUSI 5350 - Selected Topics in Music Pedagogy
- MUSI 5351 - Philosophical Foundations of Music Education
- MUSI 5352 - Psychological Foundations of Music Education
- MUSI 3326 - Post-Tonal Analysis
- MUSI 3390 - Schenkerian Analysis
- MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)
- MUSI 4490 - 20th-Century Form and Technique

## Voice

### *Prescribed Electives (choose 6 credit hours)*

- MUSI 5359 - Advanced Diction for Singers
- MUSI 5205 - Opera/Theatre Lab
- MUSI 3394 - Digital Music Technology
- MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)
- MUSI 5350 - Selected Topics in Music Pedagogy
- MUSI 5351 - Philosophical Foundations of Music Education
- MUSI 5352 - Psychological Foundations of Music Education
- MUSI 3326 - Post-Tonal Analysis
- MUSI 3390 - Schenkerian Analysis
- MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)
- MUSI 4490 - 20th-Century Form and Technique

## Jazz

### *Prescribed Electives (choose 6 credit hours)*

- MUSI 5110 - Jazz Combo
- MUSI 5366 - Jazz Styles and Analysis
- MUSI 5355 - Rehearsal Techniques
- MUSI 5360 - Advanced Technology for Musicians
- MUSI 3394 - Digital Music Technology
- MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)
- MUSI 5350 - Selected Topics in Music Pedagogy
- MUSI 5351 - Philosophical Foundations of Music Education
- MUSI 5352 - Psychological Foundations of Music Education
- MUSI 3326 - Post-Tonal Analysis
- MUSI 3390 - Schenkerian Analysis
- MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)
- MUSI 4490 - 20th-Century Form and Technique

## Conducting

### *Prescribed Electives (choose 6 credit hours)*

- MUSI 3394 - Digital Music Technology
- MUSI 5355 - Rehearsal Techniques
- MUSI 5359 - Advanced Diction for Singers
- MUSI 5112 - Chamber Music (maximum of 3 repeats)
- MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)
- MUSI 5350 - Selected Topics in Music Pedagogy
- MUSI 5351 - Philosophical Foundations of Music Education
- MUSI 5352 - Psychological Foundations of Music Education
- MUSI 3326 - Post-Tonal Analysis
- MUSI 3390 - Schenkerian Analysis
- MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)
- MUSI 4490 - 20th-Century Form and Technique

## Admission Requirements

### Unconditional Admission

1. Bachelor's degree in music or its demonstrated equivalent (such as music conservatory

degree, a bachelor's degree in some other discipline with substantial undergraduate hours in music, etc.). A person with a bachelor degree in a major other than music must have the equivalent of 18 hours of upper level music courses and may be asked to complete a Music Theory Barrier exam. Three letters of recommendation are required, speaking to the student's potential for success from references familiar with the student's academic background.

2. A minimum 3.0 GPA in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. Applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL), or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:
  - Writing: 22
  - Speaking: 21
  - Reading: 20
  - Listening: 16

**Those who do not meet the English proficiency requirement must satisfactorily complete courses in the ESOL area, as approved by the program and the Graduate School.**

4. Applicants must audition (in person or by submitting a tape) with repertoire of at least college senior recital level. A repertoire list must be submitted for evaluation at the time of the audition. For further information contact the Graduate Advisor.

All admission criteria will be considered equally. Students meeting all four criteria will be granted unconditional admission.

### **Probationary Status**

A student not meeting the above criteria but who shows promise for successful graduate study may be admitted probationally. This period of probation is not to exceed one semester and the conditions of probation must be resolved during the first semester. The conditions will be in the offer letter of admission. (The Music department does not have the authority to lower University TOEFL score requirements for any student.)

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferred Admission**

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

## **Certificate in Performance**

The Certificate in Performance requires 15 hours of coursework and is currently available only in Keyboard Studies: nine hours of applied study (MUSI 5392), a three-credit-hour recital (MUSI 5391) and three hours of keyboard accompaniment (MUSI 5170).

### **Certificate Admission Requirements**

Students wishing to enroll only in the certificate program but not a graduate degree program may apply for admission to U.T. Arlington as a special student (non-degree seeking). Admission requires a bachelor's degree or equivalent and would be contingent upon an audition for a

minimum of two faculty members; GRE scores and letters of recommendation are not required. Students in this certificate program who later seek graduate degrees at U.T. Arlington may apply 12 hours of certificate coursework within six years of completion and award of the certificate, if they meet the admission requirements for the graduate degree and receive approval from the appropriate Graduate Studies Committee and the Dean of Graduate Studies. Admission as a special student in no way guarantees subsequent unconditional admission into a graduate program or into the Graduate School.

### TOEFL Requirement

Applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL) or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:

- Writing: 22
- Speaking: 21
- Reading: 20
- Listening: 16

### Fellowships

Fellowships, when available, will be awarded on a competitive basis. The Graduate Advisor should be notified of your interest in these fellowships at the time of your application. Nominees for the Graduate School Master's Fellowship in Music will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 9 hours of enrollment in both long semesters to retain their fellowships.
- The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in music from an accredited institution (or its demonstrated equivalent).
- Three letters of recommendation

The Department has a limited number of [Enhanced Graduate Teaching Assistantships](#) available. In addition to the requirements above, applicants for the EGTA positions must adhere to the following:

- A live audition is strongly encouraged whenever possible. (Performance Majors only)
- An interview, either in person or by phone, must be conducted by the Graduate Committee or a subset thereof.
- The Chair of the Department must be present at the audition and/or the interview.

### Final Master's Examination

A final program examination is required of all Music Education degree candidates. A final Master's examination may result in:

1. An unconditional pass with a recommendation to the Graduate Dean that the candidate be certified to receive the degree.
2. A conditional pass with the requirement that additional conditions be met, which may include further work on the thesis or thesis substitute, additional coursework with a minimum specified grade point average or both (in all cases the final master's examination must be repeated within a specified period).

3. Failure, with permission to be re-examined within a specified period; or
4. Failure, with recommendation to the Dean of Graduate Studies that the candidate be dismissed from the program. The Music Department limits to 2 the number of times the examination can be taken.

## MUSI Courses

### MUSI5100 – WIND SYMPHONY

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5101 – SYMPHONIC WINDS

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5102 – A CAPELLA CHOIR

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5103 – CHAMBER SINGERS

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5104 – UNIVERSITY SINGERS

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5106 – KEYBOARD ENSEMBLE

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5107 – JAZZ ORCHESTRA

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5108 – JAZZ ENSEMBLE

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5109 – VOCAL JAZZ



**1 Lecture Hour · 0 Lab Hours**

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### **MUSI5110 – JAZZ COMBO**

**1 Lecture Hour · 0 Lab Hours**

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### **MUSI5111 – ORCHESTRA**

**1 Lecture Hour · 0 Lab Hours**

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### **MUSI5112 – CHAMBER MUSIC**

**1 Lecture Hour · 0 Lab Hours**

This course is an in-depth study of the repertoire of standard chamber ensembles such as string quartets and piano trios, woodwind quintets and brass quintets. Weekly coaching with professors culminates in a public performance where students demonstrate skills in music performance. Prerequisite: Approval of Ensemble Director.

### **MUSI5120 – PRIVATE LESSONS IN VOICE**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in voice. This course may be repeated for credit as often as course content changes.

### **MUSI5121 – PRIVATE LESSONS IN PIANO**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in piano. This course may be repeated for credit as often as course content changes.

### **MUSI5122 – PRIVATE LESSONS IN ORGAN**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in organ. This course may be repeated for credit as often as course content changes.

### **MUSI5123 – PRIVATE LESSONS IN HARPSICHORD**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in harpsichord. This course may be repeated for credit as often as course content changes.

### **MUSI5124 – PRIVATE LESSONS IN JAZZ PIANO**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in jazz piano. This course may be repeated for credit as often as course content changes.

### **MUSI5125 – PRIVATE LESSONS IN VIOLIN**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.



### **MUSI5126 – PRIVATE LESSONS IN VIOLA**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.

### **MUSI5127 – PRIVATE LESSONS IN CELLO**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in cello. This course may be repeated for credit as often as course content changes.

### **MUSI5128 – PRIVATE LESSONS IN BASS**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in bass. This course may be repeated for credit as often as course content changes.

### **MUSI5129 – PRIVATE LESSONS IN JAZZ BASS**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in jazz bass. This course may be repeated for credit as often as course content changes.

### **MUSI5130 – PRIVATE LESSONS IN GUITAR**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in guitar. This course may be repeated for credit as often as course content changes.

### **MUSI5131 – PRIVATE LESSONS IN CLARINET**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in clarinet. This course may be repeated for credit as often as course content changes.

### **MUSI5132 – PRIVATE LESSONS IN OBOE**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in oboe. This course may be repeated for credit as often as course content changes.

### **MUSI5133 – PRIVATE LESSONS IN FLUTE**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in flute. This course may be repeated for credit as often as course content changes.

### **MUSI5134 – PRIVATE LESSONS IN SAXOPHONE**

3 Lecture Hours · 0 Lab Hours

This course provides private instruction in saxophone. This course may be repeated for credit as often as course content changes.

### **MUSI5135 – PRIVATE LESSONS IN BASSOON**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in bassoon. This course may be repeated for credit as often as

course content changes.

### **MUSI5136 – PRIVATE LESSONS IN TRUMPET**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5137 – PRIVATE LESSONS IN FRENCH HORN**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5138 – PRIVATE LESSONS IN TROMBONE**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in trombone. This course may be repeated for credit as often as course content changes.

### **MUSI5139 – PRIVATE LESSONS IN TUBA**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in tuba. This course may be repeated for credit as often as course content changes.

### **MUSI5140 – PRIVATE LESSONS IN EUPHONIUM**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in euphonium. This course may be repeated for credit as often as course content changes.

### **MUSI5190 – KEYBOARD ACCOMPANIMENT**

1 Lecture Hour · 0 Lab Hours

This course entails the student accompanying performances as specified and supervised by the instructor.

### **MUSI5191 – CONFERENCE COURSE IN MUSIC**

1 Lecture Hour · 0 Lab Hours

Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: permission of instructor and Graduate Advisor.

### **MUSI5205 – MUSIC THEATRE/OPERA LAB**

2 Lecture Hours · 0 Lab Hours

Exploration of opera roles, staging techniques, and repertoire. Prerequisite: Approval of the ensemble director.

### **MUSI5220 – PRIVATE LESSONS IN VOICE**

3 Lecture Hours · 0 Lab Hours

This course provides private instruction in voice. This course may be repeated for credit as often as course content changes.

### **MUSI5221 – PRIVATE LESSONS IN PIANO**

3 Lecture Hours · 0 Lab Hours

This course provides private instruction in piano. This course may be repeated for credit as often as course

content changes.

### **MUSI5222 – PRIVATE LESSONS IN ORGAN**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in organ. This course may be repeated for credit as often as course content changes.

### **MUSI5223 – PRIVATE LESSONS IN HARPSICHORD**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in harpsichord. This course may be repeated for credit as often as course content changes.

### **MUSI5224 – PRIVATE LESSONS IN JAZZ PIANO**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz piano. This course may be repeated for credit as often as course content changes.

### **MUSI5225 – PRIVATE LESSONS IN VIOLIN**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.

### **MUSI5226 – PRIVATE LESSONS IN VIOLA**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in viola. This course may be repeated for credit as often as course content changes.

### **MUSI5227 – PRIVATE LESSONS IN CELLO**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in cello. This course may be repeated for credit as often as course content changes.

### **MUSI5228 – PRIVATE LESSONS IN BASS**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in bass. This course may be repeated for credit as often as course content changes.

### **MUSI5229 – PRIVATE LESSONS IN JAZZ BASS**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz bass. This course may be repeated for credit as often as course content changes.

### **MUSI5230 – PRIVATE LESSONS IN GUITAR**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in guitar. This course may be repeated for credit as often as course content changes.

### **MUSI5231 – PRIVATE LESSONS IN CLARINET**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in clarinet. This course may be repeated for credit as often as course content changes.

### **MUSI5232 – PRIVATE LESSONS IN OBOE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in oboe. This course may be repeated for credit as often as course content changes.

### **MUSI5233 – PRIVATE LESSONS IN FLUTE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in flute. This course may be repeated for credit as often as course content changes.

### **MUSI5234 – PRIVATE LESSONS IN SAXOPHONE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in saxophone. This course may be repeated for credit as often as course content changes.

### **MUSI5235 – PRIVATE LESSONS IN BASSOON**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in bassoon. This course may be repeated for credit as often as course content changes.

### **MUSI5236 – PRIVATE LESSONS IN TRUMPET**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5237 – PRIVATE LESSONS IN FRENCH HORN**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in French Horn. This course may be repeated for credit as often as course content change.

### **MUSI5238 – PRIVATE LESSONS IN TROMBONE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in trombone. This course may be repeated for credit as often as course content changes.

### **MUSI5239 – PRIVATE LESSONS IN TUBA**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in tuba. This course may be repeated for credit as often as course content changes.

### **MUSI5240 – PRIVATE LESSONS IN EUPHONIUM**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in euphonium. This course may be repeated for credit as often as course content changes.

### **MUSI5241 – PRIVATE LESSONS IN PERCUSSION**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in percussion. This course may be repeated for credit as often as course content changes.

### **MUSI5242 – PRIVATE LESSONS IN IMPROVISATION**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in improvisation. This course may be repeated for credit as often as course content changes.

### **MUSI5291 – CONFERENCE COURSE IN MUSIC**

**2** Lecture Hours · **0** Lab Hours

Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: permission of instructor and Graduate Advisor.

### **MUSI5301 – FORM AND STYLE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A survey of the forms and styles of Western art music employing relevant analytical techniques.

### **MUSI5302 – THEORY & COMPOSITION SPECIAL TOPICS**

**3** Lecture Hours · **0** Lab Hours

This course covers topics which vary from semester to semester, and includes in-depth study of selected topics in music theory. This course may be repeated for credit as often as the content changes. (Formerly MUSI 5330.)

### **MUSI5308 – MUSIC HISTORY SELECTED TOPICS**

**3** Lecture Hours · **0** Lab Hours

This course will consist of an in-depth study of a particular genre, composer, or period. It may be repeated as the course content changes.

### **MUSI5320 – PRIVATE LESSONS IN VOICE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in voice. This course may be repeated for credit as often as course content changes.

### **MUSI5321 – PRIVATE LESSONS IN PIANO**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in piano. This course may be repeated for credit as often as course content changes.

### **MUSI5322 – PRIVATE LESSONS IN ORGAN**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in organ. This course may be repeated for credit as often as course content changes.

### **MUSI5323 – PRIVATE LESSONS IN HARPSICHORD**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in harpsichord. This course may be repeated for credit as often as course content changes.

### **MUSI5324 – PRIVATE LESSONS IN JAZZ PIANO**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz piano. This course may be repeated for credit as often as course content changes.

### **MUSI5325 – PRIVATE LESSONS IN VIOLIN**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.

### **MUSI5326 – PRIVATE LESSONS IN VIOLA**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in viola. This course may be repeated for credit as often as course content changes.

### **MUSI5327 – PRIVATE LESSONS IN CELLO**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in cello. This course may be repeated for credit as often as course content changes.

### **MUSI5328 – PRIVATE LESSONS IN BASS**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in bass. This course may be repeated for credit as often as course content changes.

### **MUSI5329 – PRIVATE LESSONS IN JAZZ BASS**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz bass. This course may be repeated for credit as often as course content changes.

### **MUSI5332 – PRIVATE LESSONS IN OBOE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in oboe. This course may be repeated for credit as often as course content changes.

### **MUSI5333 – PRIVATE LESSONS IN FLUTE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in flute. This course may be repeated for credit as often as course content changes.

### **MUSI5334 – PRIVATE LESSONS IN SAXOPHONE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in saxophone. This course may be repeated for credit as often as course content changes.

### **MUSI5335 – PRIVATE LESSONS IN BASSOON**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in bassoon. This course may be repeated for credit as often as course content changes.

### **MUSI5336 – PRIVATE LESSONS IN TRUMPET**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5337 – PRIVATE LESSONS IN FRENCH HORN**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in French Horn. This course may be repeated for credit as often as course content changes.

### **MUSI5338 – PRIVATE LESSONS IN TROMBONE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in trombone. This course may be repeated for credit as often as course content changes.

### **MUSI5339 – PRIVATE LESSONS IN TUBA**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in tuba. This course may be repeated for credit as often as course content changes.

### **MUSI5340 – PRIVATE LESSONS IN EUPHONIUM**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in euphonium. This course may be repeated for credit as often as course content changes.

### **MUSI5341 – PRIVATE LESSONS IN PERCUSSION**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in percussion. This course may be repeated for credit as often as course content changes.

### **MUSI5342 – PRIVATE LESSONS IN IMPROVISATION**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in improvisation. This course may be repeated for credit as often as course content changes.

### **MUSI5343 – PRIVATE LESSONS IN GUITAR**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in guitar. This course may be repeated for credit as often as course content changes.

### **MUSI5344 – PRIVATE LESSONS IN CLARINET**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in clarinet. This course may be repeated for credit as often as course content changes.

### **MUSI5350 – SELECTED TOPICS IN MUSIC PEDAGOGY**

**3** Lecture Hours · **0** Lab Hours

This course covers topics which vary from semester to semester and includes studies of teaching techniques applied to pre-K, elementary grades, the junior high school, the high school, the junior college, and the college or university. This course may be repeated for credit as often as the content changes.

### **MUSI5351 – PHILOSOPHICAL FOUNDATIONS OF MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Study in the philosophy of music education.

### **MUSI5352 – PSYCHOLOGICAL FOUNDATIONS OF MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

A study of the psychological foundations of music education. An investigation of topics such as perception of and responses to music, the nature of musical attributes, music learning, and the measurement of musical behavior.

### **MUSI5353 – PROJECT IN MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

For students enrolled in the non-thesis option. Offers the opportunity to complete a professional project in music education relevant to the student's background, interest, and/or needs. The project should include, but not necessarily be limited to, appropriate written documentation. May be repeated for credit, but not more than 3 hours will apply to the Master of Music degree. Enrollment is required each term in which the project is in progress.

### **MUSI5354 – SELECTED TOPICS IN MUSIC LITERATURE**

**3** Lecture Hours · **0** Lab Hours

This course covers topics which vary from semester to semester and includes studies in musical literature for the following: 1) Wind Band Literature; 2) Orchestral Literature; 3) Choral Literature; 4) World Music Literature; 5) Jazz Literature. This course may be repeated for credit as often as the content changes.

### **MUSI5355 – REHEARSAL TECHNIQUES**

**3** Lecture Hours · **0** Lab Hours

A study of rehearsal techniques, including tone development, phrasing, rehearsal score study, and rehearsal organization. Topics, which may vary by semester, are 1) Choral; 2) Instrumental; 3) Jazz. May be repeated for credit when topics vary. Topics may be taken concurrently.

### **MUSI5356 – ORCHESTRAL EXCERPTS**

**3** Lecture Hours · **0** Lab Hours

Study of orchestral excerpts for individual instruments. Topics will vary by semester. May be repeated for credit. Permission of instructor required.

### **MUSI5359 – ADVANCED DICTION FOR SINGERS**

**3** Lecture Hours · **0** Lab Hours

A study of performance diction for singers and the pronunciation of the language as it applies to public performance. Topics include English, French, Italian, and German. May be repeated for credit when topics vary.

### **MUSI5360 – ADVANCED TECHNOLOGY FOR MUSICIANS**

**0** Lecture Hours · **3** Lab Hours

Intensive and extensive student-centered study topics to be selected from MIDI sequencing, multimedia development, advanced music notation and digital sampling and synthesis.

### **MUSI5361 – ELEMENTARY MUSIC**

**3** Lecture Hours · **0** Lab Hours

A study of current methods and materials used in teaching elementary music. Classroom instruments are also studied.



### **MUSI5362 – INTRODUCTION TO RESEARCH IN MUSIC**

**3** Lecture Hours · **0** Lab Hours

An introduction to the methods and materials of research in music, including instruction on appropriate style formats for papers and theses.

### **MUSI5363 – RESEARCH IN MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An introduction to historical, philosophical, descriptive, and experimental research in music education and present research practices in music education.

### **MUSI5364 – HISTORICAL FOUNDATIONS AND CURRICULAR TRENDS IN MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

A study of the historical foundations of music education and curricular trends that provide the context for contemporary music education.

### **MUSI5365 – MEANING & REPRESENTATION IN MUSIC**

**3** Lecture Hours · **0** Lab Hours

This course will explore the basic questions of meaning in music, including the question of whether or not music can truly have meaning at all. Students will explore various philosophical, scientific, and musical (i.e. from composers and performers) viewpoints through readings, discussion, and writing.

### **MUSI5366 – JAZZ STYLE AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An in depth examination of the improvisational techniques used by prominent jazz musicians. Topics will include transcription and theoretical analysis over different periods and styles in jazz.

### **MUSI5391 – CONFERENCE COURSE IN MUSIC**

**3** Lecture Hours · **0** Lab Hours

Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: Permission of instructor and Graduate Advisor.

### **MUSI5393 – CONDUCTING**

**3** Lecture Hours · **0** Lab Hours

Applied lessons in conducting. This course is an in-depth study of conducting technique as applied to choral or instrumental ensembles. It may be repeated for credit as the content changes.

### **MUSI5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

The graduate student must be registered for 5398 when in consultation over the thesis with the advisor or supervisory committee.

### **MUSI5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

The graduate student must be registered for 5698 in the semester or term in which the Master of Music degree will be conferred.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Political Science

College of Liberal Arts

### Chair **Rebecca Deen**

Web [www.uta.edu/pols/](http://www.uta.edu/pols/)  
Phone 817.272.2991  
Fax 817.272.2525

**206 University Hall**

---

### Degrees / Certificates

**Master's Degrees**  
Political Science, M.A.

---

### Graduate Faculty

**Senior Vice Provost**  
**Michael Moore**

**Professor**  
**Mark Cichock**  
**Victoria Farrar-Myers**  
**Jose Gutierrez**  
**Susan Hekman**  
**Joseph Ignagni**  
**Thomas Marshall**  
**Dale Story**

**Associate Professor**  
**Brent Boyea**  
**Jill Clark**  
**Rebecca Deen**  
**Allan Saxe**

**Assistant Professor**  
**Aytem Bayram**  
**Heidi Hardt**  
**Brent Sasley**  
**Daniel Sledge**

**Associate Adjunct Professor**  
**Thomas Little**

**Professor Emeritus**  
**Allan Butcher**

**Senior Lecturer**  
**Larry Carter**

---

## Graduate Advisors

**Brent Sasley**  
*Political Science, M.A.*

---

## Department Information

### Courses

# Department Information

### Objective

#### Admissions and Fellowship Criteria

- **Probationary Status**
- **Provisional Admission**
- **Deferral**
- **Denial**
- **Fellowships**

#### Degree Requirements

- **International Studies Option**
- **U.S. Political Institutions and Processes Option**

#### Dual Degree Program

### Objective

The program leading to a Master of Arts degree in Political Science emphasizes preparation for service in many areas of our national life, both public and private. Students interested in careers in teaching and research or in leadership roles in the public or private sectors may pursue programs adapted to their individual objectives. The Department of Political Science endeavors to equip students with the research techniques and substantive background for coursework undertaken beyond the master's level. Particular attention is given to newer methodologies and approaches employed by scholars in the field.

### Admissions and Fellowship Criteria

The program is committed to a holistic admissions approach. As a result, admissions criteria include: grade point averages, letters of recommendation, personal statements, advanced degrees, graduate courses taken as a degreed student or in another program, and professional work experience. The major purpose of the admissions criteria is to promote access to our program, but maintain standards that will enable the department to determine if the applicant demonstrates the requisite skill level to master the requirements of the program.

Admission to the M.A. program in political science is based upon the completion of the general admission requirements of the Graduate School. Applicants are required to submit all official transcripts, a personal statement, and three (3) letters of recommendation. The department will review the application package in its entirety. The package is evaluated to determine if a student has achieved a 3.00 grade point average (GPA) in the last 60 hours of their undergraduate work

as calculated by the Graduate School, and meets other admission requirements. If a student has already earned an advanced degree, the department will evaluate the student's academic performance in obtaining that degree equally with the undergraduate performance. International students must meet or exceed the minimum university standard on the TOEFL (550 for paper examination, 213 for computer examination), TOEFL iBT (total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section), TSE (40), or the IELTS (6.5).

The criteria for admission below are used, without specific weights, as positive indicators of potential success in the program. All four criteria for unconditional admission must be met in order to receive unconditional admission.

1. A bachelor's degree from an accredited general or specific program. A bachelor's degree in political science, however, is not required.
2. An undergraduate GPA of 3.00 or greater (as calculated by the Graduate School) in the last 60 credit hours of completing an undergraduate B.A. or B.S. degree from an accredited institution (verified by the Graduate School from official transcripts from each college or university previously attended).
3. A written statement (200 words) explaining the applicant's reasons for graduate study in political science.
4. Three letters of recommendation (including at least two from university/college faculty) mailed directly from the recommenders to the graduate advisor of political science. Letters of recommendation must favorably assess the applicant's potential success in a graduate program and in the field of political science.

### Probationary Status

Students who do not qualify for unconditional admission may be considered for probationary admission if they satisfy any 3 of the 4 criteria for unconditional admission. Students with a reported grade point average below 2.70, however, will not be eligible for probationary admission. Being admitted on probationary status means that the student will be able to take graduate level classes, but the student must earn a B or better in their first 12 hours of graduate coursework at UT Arlington. This regulation will be strictly enforced.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline, but otherwise appears to meet admission requirements, may be granted provisional admission. Provisionally admitted students must adequately satisfy any incomplete documentation by the end of the semester in which they are admitted. If the applicant fails to do so, the Department may then reclassify the applicant's admission status as probationary or ask the student to leave the program.

### Deferral

A deferred decision may be granted when a file is incomplete or when a denial decision is not appropriate.

### Denial

If two or more of the aforementioned criteria for unconditional admission have not been met with satisfaction or the applicant's grade point average is below 2.70, the candidate will be denied admission.

### Fellowships

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Graduate School Master's Fellowship in the Political Science master's program will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.

- The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in Political Science (or appropriate related field) from an accredited institution.
- Three letters of recommendation. These letters may be the same submitted for admission.
- A written statement explaining the applicant's reasons for graduate study in Political Science.

## Degree Requirements

The thesis degree plan requires 24 hours of coursework including three hours of methods in Political Science for those who have not had POLS 3310 or its equivalent. Of the remaining 21 hours, at least one course each must be taken from four of the following five areas:

- Political Behavior and Processes: 5300, 5311, 5315, 5316, 5317, 5318, 5319, 5320, 5321, 5322, 5380.
- Comparative Politics: 5303, 5331, 5333, 5335, 5336, 5337, 5381.
- International Politics and Organization: 5332, 5334, 5338, 5339, 5341, 5342, 5384.
- Public Law and Jurisprudence: 5301, 5323, 5382.
- Public Administration and Policy Studies: 5302, 5324, 5325, 5326, 5327, 5328, 5329, 5330, 5368, 5369, 5383.

Additional courses may also be taken in the area of political theory, but other than the methods requirement (POLS 5310) that area is not required for the thesis or non-thesis degree plans. Elective courses in political theory include:

- POLS 5305.

Students should consult the Political Science Graduate Student Handbook for regulations on transfer courses, undergraduate courses, conferences, internships, and special courses. It is recommended that students complete at least one general field seminar (5300, 5301, 5302, 5303, 5332) prior to taking the topics courses. See the Graduate Advisor for more detail.

The non-thesis degree plan requires a minimum of 36 hours, including three hours of methodology, and courses from four of the five areas.

All candidates for the degree of Master of Arts with a major in political science must pass a final comprehensive examination, written, oral, or both written and oral. The scope, content, and form of the examination will be determined by the student's supervising committee. In the event of failure of the final comprehensive examination, the student may petition the Committee on Graduate Studies to retake the examination on a date no sooner than 60 days after the first examination. Students will not be permitted more than one reexamination after failure of the initial examination.

## International Studies Option

The International Studies option of the Master of Arts program in Political Science emphasizes comparative politics and international politics within the framework of Political Science. This option requires courses from three of six areas of Political Science and 12 hours in comparative politics and/or international politics. Students must have three hours of a methods course. Upon satisfying the requirements for this option, students will receive a letter of completion. Completion will not be reflected on student transcripts.

## U.S. Political Institutions and Processes Option

The U.S. Political Institutions and Processes option of the Master of Arts program in Political Science emphasizes political behavior and processes and public law and jurisprudence within the framework of political science. This option requires courses from three of six areas of Political Science and 12 hours in political behavior and processes and/or public law and jurisprudence. Students must have three hours of a methods course. Upon satisfying the requirements for this

option, students will receive a letter of completion. Completion will not be reflected on student transcripts.

## Dual Degree Program

Students in political science may participate in a dual degree program whereby they can earn a Master of Arts in political science and a Master of Arts in criminal justice. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs. To participate in the dual degree program, students must make separate application to each program and must submit a separate program of work for each degree. Those interested in a dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement on "Dual Degree Programs" in the general information section of this catalog.

## POLS Courses

### POLS5197 – MASTER'S COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Required of all non-thesis Master of Arts students in the semester of their graduation. Graded P/F/R.

### POLS5300 – AMERICAN GOVERNMENT AND POLITICS

3 Lecture Hours · 0 Lab Hours

A survey of the major theories and subfields in the study of American politics. Readings comprise a representation of scholarship illustrating a variety of substantive and methodological approaches.

### POLS5301 – JUDICIAL POLITICS AND THE U.S. SUPREME COURT

3 Lecture Hours · 0 Lab Hours

This course focuses on judicial decision-making and behavior. While the entire American court system will be considered, primary attention will be given to the U.S. Supreme Court and constitutional issues.

### POLS5302 – BUREAUCRATIC LEADERSHIP: TRENDS IN PUBLIC ADMINISTRATION AND POLICY MANAGEMENT

3 Lecture Hours · 0 Lab Hours

Recent literature in organizational theory, government restructuring, and policy management problems.

### POLS5303 – COMPARATIVE POLITICAL SYSTEMS

3 Lecture Hours · 0 Lab Hours

Theories, concepts, and methods that dominate modern comparative political analysis. The state of the discipline and controversies in the comparative method are evaluated.

### POLS5305 – TOPICS IN POLITICAL THEORY

3 Lecture Hours · 0 Lab Hours

This course will cover both historical and contemporary topics central to the discipline of political theory. It will consider the major figures in the field as well as themes such as citizenship, democracy, freedom, and authority. May be repeated for credit as the topic changes.

### POLS5310 – EMPIRICAL THEORY AND RESEARCH METHODS

**3 Lecture Hours · 0 Lab Hours**

Focus on issues of philosophy of science, explanations and theories, research designs, measurement, survey research, and statistical analysis. Exposes the student to the basic steps of political research: defining the problem or the question, formulating hypotheses, specifying a research design, operationalizing the measures, analyzing the data, and reaching conclusions.

### **POLS5311 – CAMPAIGNS AND ELECTIONS**

**3 Lecture Hours · 0 Lab Hours**

Describes important trends in modern campaigns and elections practices, focusing on contemporary American elections, including campaign finance, voter turnout, campaign advertising, and voter choices. Class presentations, a short research paper, and journal article readings.

### **POLS5315 – PUBLIC OPINION**

**3 Lecture Hours · 0 Lab Hours**

Describes the development of survey research and commonly-encountered problems in surveys. Focuses most heavily on the contemporary practice of public opinion research, particularly in the American setting. Class presentations, a short research paper, and journal article readings.

### **POLS5316 – PUBLIC LEADERSHIP: RACE, ETHNICITY, & GENDER**

**3 Lecture Hours · 0 Lab Hours**

Study of leadership theories, skills and traits, with focus on the intersections of race, ethnicity, and gender on public leadership in the public arena.

### **POLS5317 – ETHNIC GROUPS AND THE NATION STATE**

**3 Lecture Hours · 0 Lab Hours**

Examines the role of the nation state on ethnic/racial groups; characteristics of a nation, theories of the nation state and of ethnic/racial groupings; and, theories of incorporation of these groups by the nation state.

### **POLS5318 – WOMEN IN THE POLITICAL PROCESS**

**3 Lecture Hours · 0 Lab Hours**

This course examines women and gender in the political process, exploring various theoretical and methodological approaches helpful in studying gender and politics.

### **POLS5319 – CONGRESSIONAL BEHAVIOR**

**3 Lecture Hours · 0 Lab Hours**

This course addresses several major questions regarding the nature of Congress as an institution, the behaviors of its members, and the role Congress plays in shaping public policy and the general nature of a representative democracy. Students are expected to have the ability to comprehend readings that are heavily quantitative. Course requirements will include weekly writings, a research paper and exams.

### **POLS5320 – THE AMERICAN PRESIDENCY**

**3 Lecture Hours · 0 Lab Hours**

An overview course on the U.S. Presidency, exploring the institution as well as its relationship to other branches and political actors.

### **POLS5321 – THE PRESIDENCY AND DOMESTIC POLICY**

**3 Lecture Hours · 0 Lab Hours**

This course examines presidential and domestic policy making, exploring how the president makes policy, focusing on theories of presidential leadership, White House organization and presidential-congressional interactions.



## **POLS5322 – SEPARATION OF POWERS IN AMERICAN POLITICAL DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Theories behind institutional design and the historical development of the executive, legislative, and judicial branches in the United States. Emphasis is placed on interactions of these institutions of government and current separation of powers controversies.

## **POLS5323 – STATE COURT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Examination of the major theories of judicial politics and public law applied to the state court level. Topics include attention to the institutional, strategic, and attitudinal perspectives of judicial behavior.

## **POLS5324 – PUBLIC POLICY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Examination of the U. S. national policymaking process from agenda setting to policy outcomes. A variety of analytical frameworks are introduced to analyze power structures.

## **POLS5325 – STATE GOVERNORS AND LEGISLATURES**

**3** Lecture Hours · **0** Lab Hours

Examination of the similarities and differences in the organization of state legislative and executive offices. Course focuses on the organization of state governments and the behavior of state elites.

## **POLS5326 – STATE/LOCAL GOVERNMENT POLICYMAKING**

**3** Lecture Hours · **0** Lab Hours

Focus on policy problems. Emphasis is on trends in state policy, interstate policy innovation and diffusion, and the effects of federal programs on state policy choices.

## **POLS5327 – URBAN POLICYMAKING AND ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Focus on the influence of economic, political, institutional, and organizational factors on urban policymaking and administration. A variety of regime and power structure models facilitate the analysis of urban policymaking.

## **POLS5328 – PUBLIC POLICY AND MEXICAN AMERICAN COMMUNITIES**

**3** Lecture Hours · **0** Lab Hours

Focus on the public policy process and the limited role Mexican Americans have had in national and state (TX) policymaking. Select topic areas are utilized to focus on state actors, issues, allocation of resources, and the power structure for analytical purposes.

## **POLS5329 – PUBLIC BUDGETING**

**3** Lecture Hours · **0** Lab Hours

The concepts, processes, and policy impacts of taxation and public budgeting. Introduction to current research techniques, budgetary issues, and the relevant political economy literature.

## **POLS5330 – ENERGY AND THE ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Analysis of the politics, economics, and administration of energy and environmental policies in the United States.

## **POLS5331 – POLITICAL SYSTEMS OF EAST ASIA**

**3 Lecture Hours · 0 Lab Hours**

Comparative analysis of the political institutions and processes of China and Japan, with emphasis on the aspects of political development.

### **POLS5332 – THEORIES OF THE INTERNATIONAL SYSTEM**

**3 Lecture Hours · 0 Lab Hours**

Classical theories and concepts of international politics and models of foreign policy decision-making. Also may include the underlying assumptions in traditionalist vs. behaviorist approaches in examining international relations.

### **POLS5333 – IDENTITY AND POLITICS IN THE MIDDLE EAST**

**3 Lecture Hours · 0 Lab Hours**

Deeper examination of processes of state building and political development; state-society relations; Arabism; authoritarianism and democratization; oil and economic issues; Islamist politics; the role of transnational ideas.

### **POLS5334 – VIOLENCE AND DEPRIVATION IN WORLD POLITICS**

**3 Lecture Hours · 0 Lab Hours**

Focuses on theoretical frameworks, empirical analysis, and policy relevance of myriad threats to individuals and communal groups. Examples include: human rights, failed states, violence, health issues, slavery and migration, environmental security.

### **POLS5335 – LATIN AMERICAN POLITICS**

**3 Lecture Hours · 0 Lab Hours**

Designed to give students knowledge of the political development of Latin America by first examining general topics and then analyzing events in specific countries. Utilizes themes and concepts that are universal to all Latin American nations, but also stresses the different paths to political development that have been taken in each of these countries.

### **POLS5336 – REPRESSION AND REVOLUTION IN LATIN AMERICAN**

**3 Lecture Hours · 0 Lab Hours**

Examines issues of political repression and revolutionary participation in Latin America. Topics range from human rights violations to coups and revolutions.

### **POLS5337 – POLITICAL SYSTEMS OF RUSSIA AND EASTERN EUROPE**

**3 Lecture Hours · 0 Lab Hours**

Russia and the states of Eurasia from a comparative perspective. Analysis of how political issues and policies within these states have an impact upon economic, social, and cultural systems.

### **POLS5338 – AMERICAN FOREIGN POLICY**

**3 Lecture Hours · 0 Lab Hours**

Evaluation of some of the primary theories and models used in explaining American Foreign Policy. The course attempts to bridge the gaps that exist between theory and reality through approaches such as realism, neo-realism, deterrence, and others.

### **POLS5339 – ISRAELI IDENTITY AND THE ARAB-ISRAELI CONFLICT**

**3 Lecture Hours · 0 Lab Hours**

This course will explore the deeper threads of Israeli identity, and how these impact Israeli policy toward the Arab-Israeli conflict. Topics to be covered include: diverse and clashing identities (e.g., Jewish, democratic, Middle Eastern, Israeli); how identity clashes have played out in politics; outlines of Israeli foreign policy; specific policies toward the Palestinians.

## **POLS5341 – POLITICAL PSYCHOLOGY AND INTERNATIONAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Course focuses on psychological approaches to international politics and examines how different perspectives can contribute to the study of world politics.

## **POLS5342 – INTERNATIONAL ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

This course describes the institutions, decision-making and activities of the world's leading international organizations to establish an understanding of the role of international organizations in managing contemporary global problems.

## **POLS5368 – HEALTH POLITICS AND POLICY**

**3** Lecture Hours · **0** Lab Hours

Course will survey the political history of the health care debate in the United States as well as major features of federal health policy.

## **POLS5369 – SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

This course examines the role of the federal government relating to social policy as a central theme of contemporary American politics. Issues surrounding the federal government's attempt to create a social safety net and issues such as poverty will be confronted, as well as the central role of tax expenditures and attempts to roll back social policies.

## **POLS5380 – TOPICS IN U.S. POLITICS: INSTITUTIONS, PROCESS AND BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

This course will focus on the specific aspects of U.S. governing institutions, processes, and behavior. A single aspect of U.S. politics will be examined in a given semester. (May be repeated for credit when topics vary.)

## **POLS5381 – TOPICS IN COMPARATIVE POLITICS**

**3** Lecture Hours · **0** Lab Hours

This course will serve as a treatment of emerging and established nations. (May be repeated for credit when topics vary.)

## **POLS5382 – TOPICS IN PUBLIC LAW AND JURISPRUDENCE**

**3** Lecture Hours · **0** Lab Hours

The role of U.S. national and state courts in policy making, constitutional law, and the examination of the evolution and nature of law in the United States. (May be repeated for credit when topics vary.)

## **POLS5383 – TOPICS IN PUBLIC ADMINISTRATION AND POLICY MAKING**

**3** Lecture Hours · **0** Lab Hours

U.S. national policy making and program management, state and urban policy making and administration. (May be repeated for credit when topics vary.)

## **POLS5384 – TOPICS IN INTERNATIONAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Topics of international politics, including subjects such as American foreign policy, assessments of institutions, and international behavior.

## **POLS5391 – CONFERENCE COURSE IN POLITICAL SCIENCE**

**3 Lecture Hours · 0 Lab Hours**

Research and reading in a specialized field under the direction of a member of the graduate faculty. Graded P/F/W.

### **POLS5392 – FEDERAL POLICYMAKING: INSIDE THE FEDERAL GOVERNMENT**

**3 Lecture Hours · 0 Lab Hours**

This summer course offered in Washington, DC through the Archer Program in Public Policy, takes students behind the scenes in the federal government to explain how the government works. Students meet with officials from Congress, the White House, Executive Branch agencies, lobbying firms, NGOs, think tanks, interest groups, and the media. The seminar requires significant student participation. The extensive literature on federal government dynamics will be sampled, but the focus will be on interaction with representatives of the major institutions that participate in the process of federal governance. Open to designated Archer Fellows only, by permission of POLS graduate advisor.

### **POLS5398 – THESIS**

**3 Lecture Hours · 0 Lab Hours**

Original research designed to augment existing studies of problems or topics related to one of the major fields of study.

### **POLS5692 – ARCHER CENTER WASHINGTON INTERNSHIP**

**6 Lecture Hours · 0 Lab Hours**

An approved summer internship in a government or non-governmental organization in Washington, DC. Internships are arranged with assistance from the Archer Center staff. Students acquire and utilize the interpersonal skills necessary to function effectively in an office environment; they become conversant with the substantive issues on which their office focuses; and they develop time-management, priority-setting and other skills necessary to meeting the work and classroom demands of the Archer Graduate Program in Public Policy. Open to designated Archer Fellows only, by permission of POLS graduate advisor.

### **POLS5698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

Original research designed to augment existing studies of problems or topics related to one of the major fields of study. 5398 graded R/F only; 5698 graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[Art + Art History](#)

[Communication](#)

[Criminology & Criminal  
Justice](#)

[English](#)

[History](#)

[Humanities](#)

[Modern Languages](#)

[Linguistics](#)

[Music](#)

[Philosophy & Humanities](#)

[Political Science](#)

[Sociology and  
Anthropology](#)

[Theatre Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Sociology and Anthropology

College of Liberal Arts

### Chair Shelley Smith

Web [www.uta.edu/sociology-anthropology/](http://www.uta.edu/sociology-anthropology/)

Email [sociology@uta.edu](mailto:sociology@uta.edu)

Phone 817.272.2661

Fax 817.272.3759

430 University Hall

---

### Degrees / Certificates

#### Master's Degrees

Anthropology, M.A.

Sociology, M.A. Non Thesis

Sociology, M.A. Thesis

Sociology, M.A. Thesis Substitute

---

### Graduate Faculty

#### Professor

[Ben Agger](#)

[Beth Anne Shelton](#)

[Shelley Smith](#)

[Robert Young](#)

#### Associate Professor

[Susan Baker](#)

[Dana Dunn](#)

[Heather Jacobson](#)

[Robert Kunovich](#)

[Linda Rouse](#)

[Christian Zolniski](#)

#### Assistant Professor

[Krystal Beamon](#)

[Naomi Cleghorn](#)

[Chunping Han](#)

[Ritu Khanduri](#)

[Jason Shelton](#)

[Amy Speier](#)

#### Professor Emeritus

[Joseph Bastien](#)

[Raymond Eve](#)

#### Lecturer

[Josephine Ryan](#)

---

## Graduate Advisors

**Heather Jacobson**  
*Sociology, M.A. Thesis*

**Josephine Ryan**  
*Anthropology, M.A.*

---

## Department Information

### Courses

# Department Information

### Objectives: M.A. in Sociology

#### Admissions Requirements: Sociology

- **Criteria for Unconditional Admission**
- **Criteria for Probationary Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Denied Admission**
- **International Students**

#### Fast Track Program in Sociology

#### Graduate Assistantships and Fellowships in Sociology

#### Degree Requirements: Sociology

- **Dual Degree Program**

### Objectives: M.A. in Anthropology

**Admissions Requirements: Anthropology** (Program Closed for Admission)

#### Graduate Assistantships and Fellowships in Anthropology

#### Degree Requirements: Anthropology

#### Archaeological Fieldwork

### Objectives: M.A. in Sociology

The Master of Arts program in sociology is designed to provide students with a firm substantive background in sociological theory and in the techniques of contemporary research methodology and statistical analyses. In addition to these core concerns, the program offers a variety of seminars, as well as practicum opportunities, to help prepare students for a wide range of professional careers in both the private and public sectors or continued graduate education at the Ph.D. level.

### Admissions Requirements: Sociology

Applicants must apply for admission through, and supply all information required by, the Graduate School. The Sociology Graduate Advisor, in consultation with other members of the faculty, decides on each applicant.

All of the following criteria will be considered in determining program admission status:

1. Undergraduate grade point average
2. Graduate Record Exam (GRE) scores
3. Letters of recommendation from faculty
4. Preparation in sociology and satisfactory performance in sociology courses and/or courses in related disciplines
5. A statement (2-3 pages) describing the applicant's academic background, research/study interests, and professional goals

### **Criteria for Unconditional Admission**

For unconditional admission, the student must satisfy each of the following criteria.

1. Minimum GPA of 3.0, as calculated by the Graduate School.
2. Preferred GRE score of at least 150 on the verbal subtest ( 500 on the prior scale) and 144 on the quantitative subtest (500 on the prior scale).
3. Satisfactory letters of recommendation.
4. Adequate preparation in sociology and satisfactory performance in sociology courses and/or those in related disciplines.
5. Satisfactory statement (2-3 pages) describing the applicant's academic background, research/study interests, and professional goals

### **Criteria for Probationary Admission**

Students who do not qualify for unconditional admission may be admitted on probation if they satisfy any 4 of the 5 criteria for unconditional admission.

Those entering the program under probationary status will be granted unconditional admission only after completing 12 hours of graduate sociology courses, approved by the Graduate Advisor, earning no grade below a B.

### **Provisional Admission**

An applicant unable to supply all required information prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferred Admission**

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Denied Admission**

Applicants who do not satisfy the requirements for any of the aforementioned forms of admission will not be admitted.

### **International Students**

To qualify for admission, international students must score 550 or above on the TOEFL.

Sociology students who completed their undergraduate degree in Sociology at UT Arlington with a 3.0 overall GPA, a 3.0 GPA in advanced hours, a B or better in Sociological Theory (SOCL 3372 or 4311), Social Statistics (SOCL 3352) and Social Research (SOCL 3305 or 3462), and satisfactory letters of recommendation from UT Arlington faculty qualify for automatic unconditional admission, pending submission of all required materials.

## Fast Track Program in Sociology

The Fast Track Program allows outstanding undergraduate students in sociology at UT Arlington to take up to three graduate seminars in sociology that will earn credit toward *both* the Bachelor's degree and the Master's degree in Sociology. It is designed to encourage high standards of performance, to facilitate the transition from undergraduate to graduate study, and to reduce time needed to complete the MA . Interested undergraduate students should apply for the Fast Track Program when they are within 30 hours of completing the Bachelor's degree. To qualify, students must have completed at least 30 hours at UTA with a GPA of 3.0 in all courses and 3.25 in the last 30 hours. Before entering the Fast Track, students must also have completed the four required core courses in the Sociology major with a GPA of at least 3.5, or three of the four with a GPA of 3.66 or more. Additionally, they must have already taken at least two non-core sociology courses with a GPA of 3.5 or higher.

Students who successfully complete the Fast Track Program will be admitted automatically to the Graduate School to continue their graduate work in the Sociology MA Program once the Bachelor's degree is awarded. They will *not* be required to take the GRE, complete an additional application for admission to the Graduate School, supply letters of recommendation, or pay an application fee. An undergraduate student completing the maximum of nine graduate hours would be admitted to the Sociology MA Program with only five additional courses and a thesis remaining to complete the requirements for the thesis option.

To remain in the Fast Track Program, students must receive no grade lower than a B in any graduate seminars taken as an undergraduate, selected with the advice and approval of the Sociology Graduate Advisor. Undergraduate students who do not maintain grades of B or A in the graduate courses taken will be unable to continue in the Fast Track Program but, if the courses are completed passing, will still receive credit toward their undergraduate degree requirements. Students originally denied entry into the Fast Track Program, discontinued after provisional admission, subsequently dropped or opting out are still welcome to apply to the Sociology MA Program in the usual way and will be considered without prejudice.

For an application form or to obtain more details about this program, contact the Sociology Graduate Advisor.

## Graduate Assistantships and Fellowships in Sociology

Graduate teaching and research assistantships and other forms of financial support will be awarded on a competitive basis. In addition to performance in any graduate courses the student may have taken, the same criteria used to determine admission status will be used in evaluating applications for such awards. No single factor, including standardized test scores, will be used to end consideration of any graduate assistantships.

## Degree Requirements: Sociology

Students may select from three options: the thesis, thesis substitute, or non-thesis degree plan.

**Thesis Option:** Satisfactory completion of a minimum of 24 hours of coursework, including core courses in theory, methods, and statistics, plus the six hour thesis course (SOCI 5698).

**Thesis Substitute Option:** Satisfactory completion of a minimum of 30 hours of coursework, including core courses in theory, methods, and statistics, plus the three hour thesis substitute course (SOCI 5393).

**Non-Thesis Option:** Satisfactory completion of a minimum of 33 hours of coursework, including core courses in theory, methods, and statistics, plus the three hour non-thesis course (SOCI 5385).



All candidates for the degree Master of Arts with a major in sociology must pass a final examination. For thesis candidates, it is the oral defense of the completed thesis. For thesis substitute candidates, it is an oral examination on a project, the scope, content, and form of which shall be determined by the student's supervising committee. A thesis substitute project might be, for example, a review of professional literature on a selected topic, a thematic paper integrating the course of study completed, or an internship report applying sociological concepts. For non-thesis candidates, it is an oral examination, the scope, content, and form of which shall be determined by the student's supervising committee.

### Dual Degree Program

Students in sociology may participate in a dual degree program where by they can earn a Master of Arts in Sociology and another field, such as Master of Public Administration or Master of Science in Social Work. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. Six or more hours may be jointly applied depending on the total number of hours required for both degrees, and subject to the approval of graduate advisors from both programs.

To participate in the dual degree option, students must make separate application to each program and must submit a separate Program of Work for each program. Admission to and enrollment in the two programs must be concurrent (admitted to the second program before completing more than 24 hours in the first). Those interested should consult each of the appropriate graduate advisors for coursework requirements and refer to the Graduate School catalog entry on Dual Degree Program in the Advanced Degrees and Requirements section for further details.

### Objectives: M.A. in Anthropology

The Anthropology M.A. program offers students a well-integrated curriculum in cultural anthropology, archaeology, and biological anthropology. It is intended both (1) for students who wish to prepare for admission to an anthropology Ph.D. program at another university, and (2) for those who wish to learn anthropological skills and perspectives to enhance their careers (in education, the helping professions, or other fields) in an increasingly diverse society.

Students may choose between a thesis option (30 credit hours), recommended for those planning to go on to a Ph.D. program, and a thesis substitute/internship option (36 credit hours, ordinarily including a three-hour practicum and ANTH 5370).

### Admissions Requirements: Anthropology

Program currently is closed to admissions

### Graduate Assistantships and Fellowships in Anthropology

Graduate teaching and research assistantships and other forms of financial support will be awarded on competitive basis. No single factor will be used as the basis for these awards; rather candidates' records will be evaluated in their entirety and support will be awarded to the best candidates based on the collective judgment of the Graduate Anthropology Faculty.

### Degree Requirements: Anthropology

Thesis Option: Satisfactory completion of a minimum of 30 credit hours. Program must include 1) ANTH 5310; 2) ANTH 5351; 3) a 3 hour statistics course at either the graduate or undergraduate level, as specified by the student's committee; 4) 6 hours of methods (including ANTH 5315 or ANTH 5320, and ANTH 5325 or ANTH 5363; 5) 6 hours of thesis.

Thesis Substitute/Internship Option: Satisfactory completion of a minimum of 36 credit hours. Program must include 1-4 above, ANTH 5370, and ANTH 5371.

## Archaeological Fieldwork

All graduate students concentrating in archaeology are strongly encouraged to have participated in an archaeological field school (for academic credit) or to have obtained equivalent excavation, survey, and/or laboratory experience before graduation. Students seeking placement on archaeological field projects should contact the faculty for guidance and recommendations pertinent to their goals and interests.

## ANTH Courses

### ANTH5191 – CONFERENCE COURSE

1 Lecture Hour · 0 Lab Hours

### ANTH5307 – FORENSIC ANTHROPOLOGY

3 Lecture Hours · 2 Lab Hours

Estimating age, sex, race, stature, pathology, cause of death, and time since death from human remains. The role of skeletal biology and physical anthropology in criminal investigation. Case studies will be used to demonstrate application of the methods studied. Requires enrollment in the undergraduate lab section.

### ANTH5310 – HISTORY OF ANTHROPOLOGICAL THEORY

3 Lecture Hours · 0 Lab Hours

This course is a critical examination of major theoretical trends in ethnological theory, from mid-19th century to the present.

### ANTH5315 – ARCHAEOLOGICAL METHODS

3 Lecture Hours · 0 Lab Hours

An examination of research methods and underlying theory in archaeology and their evolution since the era of European antiquarianism. Origins and development of archaeology as a scholarly discipline. Emphasis on the period 1960-present; consideration of recent trends in analysis and reportage.

### ANTH5317 – ARCHAEOLOGY OF EXPLORATION

3 Lecture Hours · 0 Lab Hours

Archaeological evidence for travel in antiquity. Technology of travel (horse/camel, wheeled vehicles, boats) and related topics (navigation; development of trade and trade routes; nature of discovery, settlement and colonization in antiquity). Case studies drawn from ancient cultures of the Old World from the Stone Age through Medieval times.

### ANTH5320 – METHODS IN BIOLOGICAL ANTHROPOLOGY

3 Lecture Hours · 0 Lab Hours

This course covers several topical areas relevant to biological anthropologists specializing in human biology, including osteology and skeletal biology, skeletal maturation (both postcranial and craniofacial), growth and development from birth to biological maturity, and selected topics in forensics, anthropometry, physiology, nutrition, genetics, epidemiology, and demography.

### ANTH5325 – QUALITATIVE METHODS

3 Lecture Hours · 0 Lab Hours

Students do fieldwork in anthropology. Students practice participant observation, conduct an interview,

collect a kinship chart, map blocks, collect life histories and participate in rituals. Course emphasizes methods of data collection, analysis/interpretation of data, and critical writing.

### **ANTH5341 – POSTCOLONIAL SOUTH ASIA**

**3** Lecture Hours · **0** Lab Hours

It approaches the competing and complementary claims on postcolonial theory by mapping the intersections in historical anthropology, literary theory, and cultural analysis. More broadly it brings to focus the shifts from Marxist to Poststructuralist directions. Though the regional focus is on India, the endeavor is also to assess dialogues among varying strands of cultural perspectives and its impact in other postcolonial contexts, both within and beyond the South Asian subcontinent.

### **ANTH5342 – ADVANCED ETHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Seminar based on student reports and critiques of assigned readings. Major emphasis on the areas of ethnology and social anthropology.

### **ANTH5344 – CULTURES OF LATIN AMERICA**

**3** Lecture Hours · **0** Lab Hours

An ethnological comparison of societies and cultures in Central and South America. Emphasis on gender, ethnicity, and political economy.

### **ANTH5345 – RELIGION AND CULTURE**

**3** Lecture Hours · **0** Lab Hours

An ethnological comparison of native religions to understand non-western belief systems. Emphasis on rituals, myths, totemic systems, taboos, and cosmology.

### **ANTH5346 – MESOAMERICAN ARCHAEOLOGY**

**3** Lecture Hours · **0** Lab Hours

An examination of the diversities of several prehistoric Mesoamerican cultures including the Olmec, Maya, Teotihuacan, Zapotec, and the Aztec. Current issues including the beginnings of agriculture, early village life, the rise of complexity and the institution of kingship, warfare, and Mesoamerican ideology and cosmology will be addressed.

### **ANTH5349 – TOPICS IN ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as the topic changes.

### **ANTH5351 – EMERGENCE OF HUMANKIND**

**3** Lecture Hours · **0** Lab Hours

An intensive review of the evidence for, and main outlines of, human biological and cultural evolution up to agricultural origins.

### **ANTH5353 – MEDICAL ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

An examination of anthropological concepts for understanding curing practices and attitudes toward health programs in various cultures.

### **ANTH5355 – HUNTERS AND GATHERERS**

**3** Lecture Hours · **0** Lab Hours

Cross-cultural approach to the ecological, social, and historical contexts of hunters, gatherers, and foragers.

### **ANTH5363 – ETHNOGRAPHY AND PERSONAL NARRATIVE**

**3** Lecture Hours · **0** Lab Hours

Focus is on anthropology and autobiography, autoethnography, life history, and narrative constructions of selfhood in different cultural contexts. Development of the life history approach in ethnographic research. Methods in the collections and analysis of life stories.

### **ANTH5365 – GLOBALIZATION AND INTERNATIONAL MIGRATION**

**3** Lecture Hours · **0** Lab Hours

Examines how the expansion of global capitalist economy has contributed to the growth of international migration around the world. Focuses on how transnational migration affects the economic, social, political, and cultural practices of immigrants in both their countries of origin and destination.

### **ANTH5369 – FOLKLORE AND MYTHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Function, forms, and interpretation of folklore and myth in traditional societies; examination of oral literature as an expression of continuity and change; emphasis on a structural analysis of myth.

### **ANTH5370 – APPLIED ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

Examines the application of anthropological knowledge to solve practical problems in today's global world. We learn how anthropological concepts, methods, and insights are applied to understand and solve important problems related to economic development, health, environmental issues, immigration, international business, and others.

### **ANTH5371 – RESEARCH PRACTICUM / INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

### **ANTH5373 – ARCHAEOLOGY FIELD SCHOOL**

**0** Lecture Hours · **3** Lab Hours

This course, conducted during the summer sessions, consists of on-site and classroom instruction in techniques of archaeological survey, excavation, laboratory, processing, and analysis. Students can receive either three or six hours of credit. Enrollment by permission of instructor only. Prior coursework in anthropology desirable but not necessary.

### **ANTH5389 – TEACHING ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

To learn strategies of coping with practical problems of teaching undergraduate anthropology, students confer with one or more professors to discuss preparing syllabi and lectures, constructing and evaluating examinations, etc. Not to be counted toward the degree requirement.

### **ANTH5392 – CONFERENCE COURSE IN ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

### **ANTH5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **ANTH5406 – HUMAN OSTEOLOGY**

**3** Lecture Hours · **2** Lab Hours

Detailed examination of human skeletal morphology. Topics include form and function of all skeletal elements in the human body, differentiation of each bone, left and right side identification, identification of fragmented remains, and muscle attachments and articulations. Content useful in forensic anthropology, archaeology, and hominid paleontology. If taken for undergraduate credit either as ANTH 4306 or ANTH 4406, cannot be repeated for graduate credit.

### **ANTH5673 – ARCHAEOLOGY FIELD SCHOOL**

**0** Lecture Hours · **6** Lab Hours

This course, conducted during the summer sessions, consists of on-site and classroom instruction in techniques of archaeological survey, excavation, laboratory, processing, and analysis. Students can receive either three or six hours of credit. Enrollment by permission of instructor only. Prior coursework in anthropology desirable but not necessary.

### **ANTH5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

## **SOCI Courses**

### **SOCI5191 – CONFERENCE COURSE**

**1** Lecture Hour · **0** Lab Hours

### **SOCI5301 – SOCIOLOGICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A comprehensive review, analysis, and evaluation of the dominant conceptual perspectives, and their proponents, in sociological theory.

### **SOCI5303 – RESEARCH DESIGN**

**2** Lecture Hours · **2** Lab Hours

Seminar on the design, plan, structure, and strategies of contemporary social research. Examines the interrelationships of theory, methods, and statistics along with the problems of measurement, sampling, scaling techniques, and the presentation of statistical data.

### **SOCI5304 – SOCIAL STATISTICS I**

**2** Lecture Hours · **2** Lab Hours

Examines a variety of statistical methods including analysis of variance and covariance, multivariate regression models, multiple and partial correlations, factor analysis, and other contemporary parametric and nonparametric techniques. Emphasis is on the application of these methods to social science data.

### **SOCI5310 – SEMINARS IN SOCIAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Introduction and discussion of theoretical and methodological perspectives in social psychology. Focusing on particular domains of social life, these seminars examine fundamental processes of social interaction and the influence of social situations and social experience on the thought, feeling, and behavior of individuals. (May be repeated for credit when topics vary.)

### **SOCI5319 – SEMINARS IN SOCIAL INSTITUTIONS AND CHANGE**

**3** Lecture Hours · **0** Lab Hours

Seminars in this area are concerned with the structure and change of the basic elements of society that represent ordered and regulated aspects of social life. Also examined are collective behavior and social movements which result from instability in institutional arrangements and represent efforts to enact social change. (May be repeated for credit when topics vary.)

### **SOCI5330 – SEMINARS IN SOCIAL DIFFERENTIATION**

**3** Lecture Hours · **0** Lab Hours

In all human societies, perceptions of differences in individuals, social positions and groups arise and form a basis for social evaluation. Seminars in this area examine the processes involved in social differentiation, social evaluation, and resulting forms of social inequality. (May be repeated for credit when topics vary).

### **SOCI5341 – SEMINARS IN THEORY AND RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Research methods seminars address a variety of issues related to quantitative and qualitative approaches to data collection and analysis. Theory courses offer extended treatment of topics in theory and theory construction, reflecting systematic efforts to understand the nature and operation of human society and social behavior. (May be repeated for credit when topics vary.)

### **SOCI5385 – NON-THESIS PROJECT**

**3** Lecture Hours · **0** Lab Hours

The topic and scope of the written project must be approved by the three graduate faculty members who will serve on the final Supervising Committee. A final oral presentation of the project is required.

### **SOCI5388 – RESEARCH PRACTICUM / INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

### **SOCI5389 – TEACHING SOCIOLOGY**

**3** Lecture Hours · **0** Lab Hours

To learn strategies of coping with practical problems of teaching undergraduate sociology, students assist one or more professors in lecture preparation, grading, and examination construction. Not to be counted toward the degree requirement.

### **SOCI5392 – CONFERENCE COURSE IN SOCIOLOGY**

**3** Lecture Hours · **0** Lab Hours

There is not currently a description listed for this course since the content varies.

### **SOCI5393 – THESIS SUBSTITUTE**

**3** Lecture Hours · **0** Lab Hours

The topic and scope of the written project must be approved by the three graduate faculty members who will serve on the final Supervising Committee. A final oral presentation of the project is required.

### **SOCI5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **SOCI5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

Home

Degree Requirements

Fields of Study

School of Architecture

College of Business

College of Education and  
Health Professions

College of Engineering

College of Liberal Arts

College of Nursing

Nursing - MSN, DNP, &  
PhD

College of Science

School of Social Work

School of Urban and Public  
Affairs

Admissions Requirements &  
Procedures

General Information &  
Regulations

Graduate Calendar

Graduate Faculty

Table of Contents

Index

## Nursing

### College of Nursing

Web [www.uta.edu/nursing/](http://www.uta.edu/nursing/)  
Phone 817.272.2776

669 Pickard Hall

### Degrees / Certificates

#### Master's Degrees

Accelerated Online MSN Nurse Pr-Adult Geri Acute  
Accelerated Online MSN Nurse PR-Adult Geri Primary  
Accelerated Online MSN Nurse Pr-Pedi Acute  
Accelerated Online MSN Nurse Pr-Pedi Primary  
Accelerated Online Nurse Educator, M.S.N. Non Thesis  
Accelerated Online Nurse Family Practitioner  
Accelerated Online Nursing Admin., M.S.N.  
Nurse Practitioner, M.S.N. Adult Geri Acute Care  
Nurse Practitioner, M.S.N. Adult Geri Primary Care  
Nurse Practitioner, M.S.N. Family FNP On Campus  
Nurse Practitioner, M.S.N. Family Psychiatric Mental Health  
Nurse Practitioner, M.S.N. Neonatal  
Nurse Practitioner, M.S.N. Pediatric Acute Care  
Nurse Practitioner, M.S.N. Pediatric Primary Care  
Nursing Admin. Executive, M.S.N. Non Thesis  
Nursing Education, M.S.N.

#### Doctoral Degrees

Accelerated Online DNP Nursing Practice  
Doctor of Nursing Practice, D.N.P.  
Nursing Administration, B.S.N. to Ph.D.  
Nursing Educator, B.S.N. to Ph.D.  
Nursing Practice-DNP  
Nursing, Clinical, B.S.N. to Ph.D.  
Nursing, Ph.D.

#### Certificates

Accelerated Online Cert Post Master's Adult Geri Acute  
Accelerated Online Cert Post Master's Family Nurse Prac  
Accelerated Online Cert Post Master's Pedi Acute  
Accelerated Online Cert Post Master's-Adult Geri Primary  
Accelerated Online Cert Post Master's-Pedi Primary  
Accelerated Online Post Bac Nursing Education Certificate  
Advanced Nursing Educator Role Certificate  
Nurse Educator  
Nurse Practitioner, Post Master Cert-Family  
Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care  
Nurse Practitioner, Post Masters Cert, Adult Geri Primary Care  
Nurse Practitioner, Post Masters Cert, Neonatal – [Gainful Employment Disclosure](#)  
Nurse Practitioner, Post Masters Cert, Pediatric Acute Care  
Nurse Practitioner, Post Masters Cert, Pediatric Primary Care

## Graduate Faculty

### Associate Dean

[Mary Schira](#)

### Clinical Assistant Professor

[Susan Baxley](#)  
[Deborah Behan](#)  
[Susan Carlson](#)  
[Daisha Cipher](#)  
[Chad Collom](#)  
[Jeannette Crenshaw](#)  
[Elizabeth Ellis](#)  
[Beverly Ewing](#)  
[Christopher Fowler](#)  
[John Gonzalez](#)  
[Linda Grande](#)  
[Nancy Handy](#)  
[Valerie Hart](#)  
[Lauri John](#)  
[Carol Lieser](#)  
[Jacqueline Michael](#)  
[Mary Jo Perley](#)  
[Cynthia Plonien](#)  
[Lisa Taylor](#)  
[Phyllis Wood](#)

### Clinical Associate Professor

[Phyllis Adams](#)  
[Joy Baker](#)

### Interim Dean, College of Nursing; Associate Dean, Dept. MSN Administration, Education, and PhD Programs; Professor

[Jennifer Gray](#)

### Interim Director, Doctor of Nursing Practice, Clinical Assistant Professor

[Sharolyn Dihigo](#)

### Interim Director, MSN Education Program; Clinical Instructor

[Marie Lindley](#)

### Professor

[Mary Lou Bond](#)  
[Carolyn Cason](#)  
[Judy Leflore](#)  
[Mary Mancini](#)

### Associate Professor

[Cheryl Anderson](#)  
[Donelle Barnes](#)  
[Maureen Courtney](#)  
[Barbara Raudonis](#)  
[Marilee Schmelzer](#)

### Assistant Professor

[Maxine Adegbola](#)  
[Mindi Anderson](#)  
[Mary Cazzell](#)  
[Kathryn Daniel](#)  
[Ronda Mintz-Binder](#)

### Associate Adjunct Professor

[Lorraine Hegstad](#)

### Clinical Professor

[Diane Snow](#)

### Assistant Clinical Professor

[Patricia Thomas](#)

### Clinical Instructor

[Deborah Boger](#)



**Essence Carter Griffin**  
**Sara Duvall**  
**Paula Gillman**  
**Marcia Harris**  
**Mary Haskew**  
**Kellie Kahveci**  
**Sandra Laird**  
**Sayda Major**  
**Bethany Mcclean**  
**Howard Mckay**  
**Lindy Moake**  
**Jodie Moore**  
**Sara Moore**  
**Patti Parker**  
**Vicki Patrick**  
**Dixie Stevenson**  
**Kimberly Wright**  
**Nancy Wyrick**

---

## Graduate Advisors

### **Felicia Chamberlain**

*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Accelerated Online Nursing Admin., M.S.N.*

### **Jennifer Gray**

*Nursing Administration, B.S.N. to Ph.D.*  
*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

### **Lauri John**

*Nursing Administration, B.S.N. to Ph.D.*  
*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

### **Marie Lindley**

*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Nursing Education, M.S.N.*

### **Cynthia Plonien**

*Accelerated Online Nursing Admin., M.S.N.*  
*Nursing Admin. Executive, M.S.N. Non Thesis*

### **Mary Schira**

*Doctor of Nursing Practice, D.N.P.*  
*Nurse Practitioner, Post Master Cert-Family*  
*Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care*  
*Nurse Practitioner, Post Masters Cert, Neonatal*  
*Nurse Practitioner, Post Masters Cert, Pediatric Acute Care*  
*Nurse Practitioner, Post Masters Cert, Pediatric Primary Care*

---

## Department Information

### Courses

# Department Information

### MSN Program

- **MSN Admissions Requirements (All MSN Programs)**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Status**
- **Denial of Admission**
- **MSN Graduate Admission Table**
- **MSN Degree Requirements**
  - **MSN Required Courses**
  - **MSN Nursing Specialty Areas**
  - **MSN Functional Role**
  - **Electives/Independent Study**

#### **Post-Masters Nurse Practitioner Certificates**

#### **Masters Nursing Certificates**

#### **Dual or Joint Degree Programs**

- **Dual Degree Programs**
- **Joint Degree (MSN from UT Arlington and MPH from University of North Texas Health Science Center in Fort Worth)**

#### **DNP Program**

- **DNP Admissions Requirements**
  - **Unconditional Admission**
  - **Probationary Admission**
  - **Provisional Admission**
  - **Deferred Status**
  - **Denial of Admission**
- **DNP Graduate Admission Table**
- **DNP Degree Requirements**
  - **DNP Required Courses**
  - **Electives/Independent Study**

#### **PhD Program**

- **PhD Admission and Degree Requirements**
- **PhD Admission Status Options**
  - **Unconditional Admission**
  - **Probationary Admission**
  - **Provisional Admission**
  - **Deferred Status**
  - **Denial of Admission**
- **The PhD Program in Nursing Admission Requirements**
- **PhD Degree Requirements**
- **BSN-to-PhD Master's Level Courses**
  - **Core Master's Courses taken by all BSN-to-PhD students**
  - **Administration Specialty Master's Courses**
  - **Clinical Specialty Master's Courses**
  - **Educator Specialty Master's Courses**

## MSN Program

### MSN Admissions Requirements (All MSN Programs)

The applicant for the Master of Science in Nursing (MSN) degree must meet the general requirements of the Graduate School and have a Bachelor of Science in Nursing (BSN) degree from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE) or proof of equivalent education at a foreign institution. Individual consideration may be given to applicants who hold a BSN degree from non-accredited programs.

Potential students must also possess a current unencumbered RN license from Texas, a compact state, or other state board of nursing.

The College of Nursing admission criteria are detailed in the MSN Graduate Admission table. The admission status options are described below.

#### Unconditional Admission

Applicants must meet all criteria for unconditional admission.

#### Probationary Admission

Criteria for probationary admission status and minimum GRE scores are listed in the [MSN Graduate Admission Table](#). When admitted on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program. Probationary students are admitted for part-time study only.

#### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

#### Deferred Status

Deferred decision is granted when a file is incomplete or when a denial decision is not appropriate.

#### Denial of Admission

An applicant will be denied admission if they have less than satisfactory performance on a majority of admission criteria listed in the MSN Admission Table.

### MSN Graduate Admission Table

Admission Criteria	Unconditional	Probationary
GPA on last 60 hours of Undergraduate Program (BSN) (as calculated by Graduate School of UTA)	3.0 <a href="#">[1]</a>	2.8-2.99 <a href="#">[3]</a> <a href="#">[5]</a>
GRE <a href="#">[2]</a> Two highest GRE scores will be used in admission process.	Not required.	Verbal: 430 or 149 <a href="#">[3]</a> or Quantitative: 430 or 141 or Analytical Writing: 3.5 Analytical: 430
Dual and Joint Degree Applicants	Additional standardized tests and requirements specific to the program must be completed. See Program advisor.	
TSE (Test of Spoken English) or TOEFL (Test of	TSE: Score of 40 or higher or TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the	

English as a Foreign Language) or IELTS (International English Language Testing System)	internet-based test and achieve the following minimum scores on subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16 or IELTS minimum score of 7.0.
Clinical Experience	<p>1. Two years clinical experience as a Registered Nurse (RN) is strongly recommended for all programs. Applicants without 2 years clinical experience should contact the Associate Dean and/or Program Director prior to making application.</p> <p>2. For the ACPNP, NNP, and ACNP programs, two years clinical experience as an RN in an acute care setting is required (Evaluated by the Associate Dean and/or Program Director).</p> <p>3. For the MSN in Nursing Education program, 2 years clinical experience is required.</p> <p>4. International students are required to have two years RN clinical experience in a United States (or equivalent) health care system.</p>
200 word Essay re: Career goals	Evaluated by Associate Deans of MSN Programs
Current and unencumbered RN License from Texas, a compact state, or other state board of nursing [4]	Evaluated by Associate Deans of MSN Programs
Pediatric Advanced Life Support (PALS)	Required only for the Acute Care Pediatric Nurse Practitioner Program; Neonatal NP applicants may complete the NRP (Neonatal Resuscitation Program).
BSN from NLNAC or CCNE Accredited Program	Evaluated by Associate Deans of MSN Programs
Undergraduate Level Statistics	Minimum grade of "C"
Cardiopulmonary Resuscitation	Required for all programs.

[1] Minimum undergraduate GPA requirement for unconditional admission is a 3.0 on a 4.0 scale as calculated by the Graduate School.

[2] Verbal, Quantitative, and Analytical Writing GRE scores will be reviewed and the two highest scores will be considered for the admission process.

[3] If a person does not meet probationary admission requirements, he or she may request review by a Committee of the Graduate Nursing Faculty. The Committee may request completion of coursework and/or additional information to support the individual's petition for admission.

[4] All graduate nursing students must have an unencumbered Registered Nursing License as designated by the Board Of Nursing (BON) for clinical courses. It is imperative that any student whose license becomes encumbered by the BON must immediately notify their department chair. The complete policy regarding encumbered RN license is available online at:

<http://www.uta.edu/nursing/MSN/unencumbered>

[5] If admitted on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program. Probationary students are admitted for part-time study only.

**Admission Policy for Individuals Ineligible to Continue Graduate Study at Another University: If potential students are ineligible to continue graduate study at another university and apply to The University of Texas at Arlington MSN Program, they will be reviewed by an admission committee. The admission committee will be composed of (at minimum): 1) Director of the Program they wish to study, 2) Representative core faculty, and 3) MSN Graduate Advisor. The admission committee will make their recommendation**

for admission or denial based on the following: 1) Admission materials (GPA on the last 60 hours of BSN, graduate GPA, GRE scores, grade of C or higher on statistics, essay, and English language score if applicable); 2) a narrative statement from the potential student providing a rationale for their ineligibility at another university; and 3) a plan for successful study at UT Arlington. The admission committee reserves the right to ask for additional materials as are needed. The admission committee will make its recommendation of admission or denial to the Graduate Office for the University.

### MSN Degree Requirements

A degree plan is developed for the student upon admission to the MSN Program. Students are required to have any changes in degree plan approved by a Graduate Advisor prior to registration. A minimum of 36 semester hours, thesis or non-thesis option, is required for the degree. Elective coursework that supports the selected nursing study area must be approved by the Graduate Advisor prior to registration. Students electing the thesis option do not have elective course requirements.

All non-thesis and thesis candidates shall pass a practicum course at the end of their coursework. All thesis candidates for the degree of Master of Science in Nursing shall present the completed thesis in a final oral examination.

MSN students must complete hours in required courses, nursing specialty area, functional role, and elective(s) depending on specific plan.

#### MSN Required Courses

NURS 5327. Analysis of Theories for Nursing  
 NURS 5301. Research in Nursing  
 NURS 5328. Theory and Research Application in Nursing

#### MSN Nursing Specialty Areas

Each student must complete the required courses in at least one nursing specialty area:

##### Nursing Administration

NURS 5311, 5340, 5341, 5342, 5343, 5382

##### Nursing Education

NURS 5302, 5308, 5309, 5318, 5319, 5326, 5360, 5361, 5362

##### Nurse Practitioner Programs

Acute Care Adult Gerontology: NURS 5303, 5305, 5314, 5315, 5334, 5418, 5435, 5436, 5631  
 Acute Care Pediatric: NURS 5303, 5306, 5314, 5315, 5334, 5418, 5441, 5442, 5444, 5631  
 Acute Care and Primary Pediatric: NURS 5303, 5306, 5314, 5315, 5334, 5418, 5441, 5442, 5444, 5631, 5632  
 Adult Gerontology Primary Care: NURS 5303, 5305, 5313, 5315, 5334, 5418, 5451, 5552, 5453, 5631  
 Family: NURS 5303, 5305, 5306, 5313, 5315, 5334, 5418, 5430, 5431, 5631  
 Neonatal Nursing: NURS 5307, 5314, 5315, 5334, 5418, 5438, 5444, 5539, 5631 or 5204, 5315, 5316, 5334, 5446, 5447, 5450, 5631  
 Primary Care Pediatric: NURS 5303, 5306, 5313, 5315, 5334, 5418, 5442, 5444, 5631  
 Family Psychiatric Mental Health: NURS 5303, 5305, 5306, 5315, 5334, 5418, 5424, 5425, 5631

#### MSN Functional Role

Each student must complete the required courses in at least one functional role as designated by their degree plan:

**Administration:** NURS 5339  
**Nurse Practitioner:** NURS 5350

**Educator:** NURS 5329

### **Electives/Independent Study**

Elective courses may be taken in Nursing or other departments of the University. Electives can also be transferred from other universities with the approval of a Graduate Advisor. Independent study offers the student the opportunity to explore topics of special interest.

### **Post-Masters Nurse Practitioner Certificates**

The nurse practitioner certificate enables individuals with a Master's Degree in Nursing to be recognized by the Board of Nursing as an Advanced Practice Registered Nurse and to take a national certification exam in their area of specialization. Certificate students must complete the required courses for the nursing specialty area and functional role.

- Acute Care Adult Gerontology Nurse Practitioner
- Acute Care Pediatric Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Family Nurse Practitioner
- Gerontological Nurse Practitioner
- Neonatal Nurse Practitioner
- Primary Care Pediatric Nurse Practitioner
- Family Psychiatric Mental Health Nurse Practitioner

### **Masters Nursing Certificates**

Two certificates in Nursing Education are available through the College of Nursing.

- **Nurse Educator:** A 6-hour certificate that includes two education courses (NURS 5302 and 5309).
- **Advanced Nurse Educator Role:** A 12-hour certificate which includes four educator courses (NURS 5302 and 5309) plus 2 of the following 3 courses: NURS 5308, 5329 or 5360.

### **Dual or Joint Degree Programs**

#### **Dual Degree Programs**

Master of Science in Nursing Administration/Master of Business Administration (MSN/MBA) [57 credit hours]

Master of Science in Nursing/Master of Science in Health Care Administration (MSN/HCAD) [60 credit hours]

#### **Joint Degree (MSN from UT Arlington and MPH from University of North Texas Health Science Center in Fort Worth)**

Master of Science in Nursing/Master of Science in Public Health (MSN/MPH) [57 Credit hours]

### **DNP Program**

The Doctor of Nursing Practice Program builds on a foundation of previous advanced practice education in nursing and prepares advanced practice nurse providers who demonstrate leadership, clinical expertise and innovation in problem recognition and resolution. The required courses identified for the DNP curriculum meet the American Association of Colleges of Nursing

Essentials for Doctoral Education for Advanced Nursing Practice (AACN, August 2006).

## DNP Admissions Requirements

The applicant for the Doctor of Nursing Practice (DNP) degree must meet the general requirements of the Graduate School and have a Master's Degree in Nursing as a Nurse Practitioner (NP) or a Post Master's with NP Preparation from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE) or proof of equivalent education at a foreign institution.

Potential students must also possess a current unencumbered Texas RN license or an unencumbered license from a designated compact state for admission.

The College of Nursing admission criteria are detailed in the DNP Graduate Admission Table. The admission status options are described.

### Unconditional Admission

Applicants must meet all criteria for unconditional admission.

### Probationary Admission

Criteria for probationary admission status are listed in the [DNP Graduate Admission Table](#). When on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

### Deferred Status

Deferred decision is granted when a file is incomplete or when a denial decision is not appropriate.

### Denial of Admission

An applicant will be denied admission if they have less than satisfactory performance on a majority of admission criteria listed in the [DNP Graduate Admission Table](#).

## DNP Graduate Admission Table

Admission Criteria	Unconditional	Probationary
GPA on master's course work or Post-Master's NP Certificate	3.5 on a 4.0 scale	3.0 - 3.49 <sup>[1]</sup>
GRE	Waived	Waived
TSE (Test of Spoken English) or TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System)	TSE: Score of 40 or higher or TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the internet-based test and achieve the following minimum scores of subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16 or IELTS minimum score of 7.0.	
Statistics course	Graduate level with a minimum grade of B.	
Current Vita or Resume	Evaluated by Associate Dean or Admissions Committee	
Written statement of career vision/goals	Evaluated by Associate Dean or Admissions Committee	
Unencumbered RN License in Texas <sup>[2]</sup>	Evaluated by Associate Dean of DNP Program	
Currently recognized by Board of Nursing as an	Evaluated by Associate Dean of DNP Program	



**APRN in Texas**

Current National certification as an NP	Evaluated by Associate Dean of DNP Program
---	--

Current NP Practice	Evaluated by Associate Dean or Admissions Committee
---------------------	---

Current CPR, ACLS, PALS or NRP as required for their Specialty Area	Evaluated by Associate Dean of DNP Program
---	--

Proficiency in use of computer for word processing, spreadsheet development, and data and text file creation and manipulation	Evaluated by Associate Dean of DNP Program
---	--

[1] Students admitted on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

[2] All graduate nursing students must have an unencumbered registered nurse license as designated by the Board Of Nursing (BON) for clinical courses. It is imperative that any student whose license becomes encumbered by the BON must immediately notify the Associate Dean for the DNP Program. The complete policy regarding encumbered RN license is available online at: <http://www.uta.edu/nursing/MSN/unencumbered>

**Admission Policy for Individuals Ineligible to Continue Graduate Study at Another University: If potential students are ineligible to continue graduate study at another university and apply to The University of Texas at Arlington DNP Program, they will be reviewed by an Admissions Committee. The Admissions Committee will be composed of (at a minimum): 1) Two representative faculty, and 2) DNP Graduate Advisor. The Admissions Committee will make their recommendation for admission or denial based on the following: 1) Admission materials (GPA on the MSN or Post-Master's certificate, grade of B or higher on graduate statistics, current vita, written statement of career vision, and English language score if applicable); 2) a narrative statement from the potential student providing a rationale for their ineligibility at another university; and 3) a plan for successful study at UT Arlington. The Admissions Committee reserves the right to ask for additional materials as are needed. The Admissions Committee will make its recommendation of admission or denial to the Graduate Office for the University.**

## DNP Degree Requirements

A degree plan is developed for the student upon admission to the DNP Program. Students are required to have any changes in planned program approved by the DNP Graduate Advisor prior to registration. The DNP Program includes 33 semester hours of required courses and 3 semester hours of elective. Students will select 3 semester hours of electives with the guidance of the graduate advisor to support and/or extend their clinical practice. Students will complete a Scholarly Project and Clinical Practica.

### DNP Required Courses

NURS 6302, 6320, 6321, 6323, 6324, 6326, 6382, 6620, 6621

### Electives/Independent Study

- Elective courses may be taken in Nursing or other departments of the University.
- Independent study offers the student the opportunity to explore topics of special interest.

## PhD Program

The Philosophy of Science in nursing program is built on a foundation of prior nursing education and prepares the student for original research and theory development. The PhD in Nursing Program is designed to prepare nurse scientists to meet the health needs of a rapidly changing and culturally diverse society. The central focus of the PhD in Nursing Program is to prepare



researchers and teachers who understand how communities evolve, interact, change and how they prescribe, understand and sanction health, illness and health seeking behaviors.

The PhD in Nursing program offers two routes of entry: BSN-PhD or MSN-PhD. Potential students should refer to admission criteria below.

### PhD Admission and Degree Requirements

The applicant for the Doctor of Philosophy in Nursing (PhD) degree must meet the general requirements of the Graduate School and have a Bachelor's degree in Nursing (BSN-PhD entry) or a Master of Science in Nursing degree (MSN-PhD entry) from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE) or proof of equivalent education at a foreign institution. Applicants must submit to the Office of Graduate Studies official transcripts from each college or university attended.

An applicant whose native language is not English must take the Test of Spoken English (TSE), the Test of English as a Foreign Language (TOEFL), or the International English Language Testing System (IELTS).

- Persons taking the TSE must make a minimum score of 40.
- Persons taking the TOEFL must make a minimum score of 550 on the paper-based test, 213 on the computer-based test, and meet the following criteria on the internet-based test: attain a minimum overall score of 79 and achieve the following minimum scores of subtests: writing: 22; speaking: 21; reading: 20; and listening: 16
- Persons taking the IELTS must make a minimum score of 7.0.

A foreign student wishing to be a graduate research assistant or a graduate teaching assistant will need to take the Test of Spoken English. For admission, the foreign student must also possess a current RN license in the state where the student is participating in clinical activities.

### PhD Admission Status Options

The College of Nursing admission criteria are detailed in the [PhD Program Requirements](#) table.

#### Unconditional Admission

Applicants must meet all criteria for unconditional admission

#### Probationary Admission

Criteria for probationary admission status are designated in the [PhD Program Requirements](#) table. When on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

#### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

#### Deferred Status

Deferred decision is granted when a file is incomplete or when a denied decision is not appropriate.

#### Denial of Admission

An applicant will be denied admission if he/she has less than satisfactory performance on a majority of admission criteria listed in the table below. The PhD Admissions Committee will make a recommendation for denial.

### The PhD Program in Nursing Admission Requirements

Admission Criteria	Unconditional	Probationary [1]
Bachelor's Degree in Nursing (BSN-PhD entry) or Master's Degree in Nursing (MSN-PhD entry) from a National League for Nursing Accrediting Commission (NLNAC) or American Association of Colleges of Nursing's Commission on Collegiate Nursing Education (CCNE) accredited College of Nursing or equivalent.	Evaluated by Associate Dean	Evaluated by Associate Dean
GPA on all bachelor's coursework (BSN-PhD) or on master's coursework (MSN-PhD).	3.0 GPA on a 4.0 scale as calculated by the Graduate School	3.0 GPA on a 4.0 scale as calculated by the Graduate School
GRE for BSN-PhD entry;  GRE waived for MSN-PhD entry	GRE with a total minimum score of: 500 or 153 on verbal; 500 or 144 on quantitative; 500/4 on analytical/analytical writing scores*	Verbal: 400-490 or 146-152;  Quantitative: 400-490 or 140-143;  Analytical Writing: 3.0-3.5;  Analytical: 400-490  (Based on GPA/GRE ratio)
For international students, TSE (Test of Spoken English) or TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System)	TSE: Score of 40 or higher or TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the internet-based test and achieve the following minimum scores of subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16.  IELTS minimum score of 7.0.	TSE: Score of 40 or higher or  TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the internet-based test and achieve the following minimum scores of subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16.  IELTS minimum score of 7.0.
Graduate level statistics course from an accredited college or university of 3 or more credit hours with a minimum grade of B.	Implement as stated	Implement as stated
Interview*	7 or higher on rating scale of 1-10	6 or less on rating scale of 1-10 Evaluated by Admissions Committee
Written statement of goals*	7 or higher on rating scale of 1-10	6 or less on rating scale of 1-10 Evaluated by Committee
Professional liability insurance.	Evaluated by Associate Dean	Evaluated by Associate Dean
Evidence of current professional nursing licensure/registration in at least one political jurisdiction. Licensure/registration must be maintained throughout the program. If a Phd student is going to perform direct patient care activities or supervise students in clinical agencies, he or she will be required to obtain an RN	Evaluated by Associate Dean	Evaluated by Associate Dean

license in Texas or a compact state.

Two years of clinical experience recommended (BSN-PhD entry)

Evaluated by Associate Dean

Evaluated by Associate Dean

Immunizations required by the College of Nursing.

Evaluated by Associate Dean

Evaluated by Associate Dean

Criminal background check prior to clinical and research activities in health care agencies, which satisfies the Dallas/Fort Worth Hospital Council and the Texas Board of Nurse Examiners.

Evaluated by Associate Dean

Evaluated by Associate Dean

Drug screen prior to clinical and research activities in health care agencies, which satisfies the Dallas/Fort Worth Hospital Council and the Texas Board of Nurse Examiners.

Evaluated by Associate Dean

Evaluated by Associate Dean

\*A new goal statement and a new interview are required with every application.

[1] A student on probation must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

## PhD Degree Requirements

Students are required to have each semester's planned program approved by the Graduate Advisor prior to registration. A minimum of 54 semester hours is required for the degree: 30 hours of core courses, 12 hours of Research Tools, 3-9 hours of individualized area of study, and 9 hours of dissertation.

Students accepted into the BSN-to-PhD entry option may select a clinical focus, an administrative focus, or an educator focus for the master's level courses. Those in the clinical focus will take 32 credit hours at the master's level. Students in the administrative focus will take 27 hours at the master's level. Those in the educator focus will take 31 credit hours at the master's level. BSN-to-PhD Students will complete all PhD requirements.

### PhD Required Courses (Core)

NURS 6301 Theoretical Evolution in Science

NURS 6302 Issues in Studying Health of Culturally Diverse and Vulnerable Populations

NURS 6303 Culture of Science

NURS 6304 Measurement in Culturally Diverse and Vulnerable Populations

NURS 6305 Qualitative Research

NURS 6306 Research Design

NURS 6308 Research Seminar

NURS 6309 Scientific Products: Preparation & Dissemination

NURS 6310 Proposal Development Seminar

NURS 6321 Epidemiology

### Research Tools

12 hours that include 6 hours advanced statistics, 3 hour research practicum, and 3 hour research tool elective

### Individualized area of study

Minimum of 3 hours of individualized study will be planned in collaboration with the Graduate Advisor.

### Dissertation

NURS 6399 Dissertation Graded R/F  
NURS 6699 Dissertation Graded R/F/P  
NURS 6999 Dissertation Graded R/F/P  
NURS 7399 Dissertation Graded R/F/P

### **Electives / Independent Study**

Elective courses may be taken in an area of concentration in other departments.

6170, 6270, 6370, 6470. Independent Study in Nursing  
Graded P/R/F.

6190, 6290, 6390, 6490. Topics in Nursing

### **Diagnostic Evaluation**

Before the completion of the first 18 hours beyond appropriate master's level coursework to assess progress and potential for completion

### **Comprehensive Examination**

Exam scheduled after all coursework and research tools are completed. Guidelines for the comprehensive exam are available in the PhD Student Handbook.

### **Proposal Defense**

Dissertation Committee reviews the study proposal and meets with the student privately to approve or not approve the proposal.

### **Dissertation Defense**

Open meeting during which student presents study findings and responds to questions posed by the dissertation committee and other attendees. Successful defense of the dissertation is the final step toward completion of the doctoral degree.

## **BSN-to-PhD Master's Level Courses**

### **Core Master's Courses taken by all BSN-to-PhD students**

5301. Research in Nursing  
5327. Analysis of Theories for Nursing  
5328. Theory and Research Application in Nursing  
5370. Independent Study

### **Administration Specialty Master's Courses**

5311. Nursing Management in the Health Care Environment  
5339. Roles and Functions of the Nurse Administrator  
5341. Financial Management in Nursing  
5342. Management of Nursing Operations  
5343. Nursing Leadership and Complex Health Care Systems

### **Clinical Specialty Master's Courses**

5303. Psychiatric Management in Advanced Nursing Practice  
5305. Adult Management in Advanced Nursing Practice I OR  
5306. Pediatric Management in Advanced Nursing Practice  
5315. Advanced Pathophysiology for Nursing Practice  
5334. Advanced Pharmacology for Nurse Practitioners  
5418. Advanced Health Assessment in Nursing Practice  
5420. Adult Management in Advanced Nursing Practice II OR  
5442. Primary Care of Pediatric Nursing

## Educator Specialty Master's Courses

5302. Curriculum Development in Nursing  
5309. Teaching/Learning Theories Strategies and Evaluation  
5318. Advanced Pathophysiology for Nursing Practice  
5361. Special Topics in Clinical Practice  
5326. Advanced Health Assessment for Nursing Practice  
5319 Advanced Pharmacology for Nurse Educators

Below is a complete course listing of the MSN, DNP and PhD in Nursing programs. For any questions regarding grading, please see policies and procedures in the graduate section of the Catalog.

## NRST Courses

### NRST5393 – UNT NURSING TRANSFER ELECTIVE

0 Lecture Hours · 0 Lab Hours

### NRST5394 – UNT HEALTH ECONOMICS

0 Lecture Hours · 0 Lab Hours

### NRST5395 – UNT CAPSTONE CULMINATING PROJECT 1

0 Lecture Hours · 0 Lab Hours

### NRST5397 – UNT PROFESSIONAL REPORT CULMINATING PROJECT II

3 Lecture Hours · 0 Lab Hours

### NRST5698 – UNT THESIS

0 Lecture Hours · 0 Lab Hours

## NURS Courses

### NURS5170 – INDEPENDENT STUDY IN NURSING

1 Lecture Hour · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, P, R. Prereq: Permission of instructor. Graduate standing.

### NURS5190 – TOPICS IN NURSING

1 Lecture Hour · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### NURS5204 – NEONATAL NURSING I

2 Lecture Hours · 0 Lab Hours

Clinical management of the high-risk neonate with a focus on the perinatal and transition periods as well as stabilization of the ill newborn at birth. Includes fluid and electrolyte management, nutrition, and identification of the indications and complications associated with invasive skills and procedures relevant to the high-risk neonate. Prerequisite: NURS 5315

### **NURS5270 – INDEPENDENT STUDY IN NURSING**

2 Lecture Hours · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, P, R. Prereq: Permission of instructor. Graduate standing.

### **NURS5290 – TOPICS IN NURSING**

2 Lecture Hours · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS5301 – RESEARCH IN NURSING**

3 Lecture Hours · 0 Lab Hours

Exploration of the research process and critical examination of published studies with emphasis on critical appraisal, interpretation of statistical results, and evidence-based practice. Prerequisite: Graduate Standing.

### **NURS5302 – CURRICULUM DEVELOPMENT AND EVALUATION**

3 Lecture Hours · 0 Lab Hours

Explore the nature of nursing education. Focus on the curriculum process and its application to nursing education programs. Prerequisite: Graduate standing.

### **NURS5303 – PSYCHIATRIC MANAGEMENT IN ADVANCED NURSING PRACTICE**

2 Lecture Hours · 3 Lab Hours

Foundations of clinical management for commonly occurring psychiatric-mental health problems across the lifespan. Prerequisite: NURS 5334 and NURS 5418.

### **NURS5305 – ADULT MANAGEMENT IN ADVANCED NURSING PRACTICE**

2 Lecture Hours · 3 Lab Hours

Foundations of clinical management for commonly occurring conditions of adults in primary care. Prerequisite: NURS 5418, 5334.

### **NURS5306 – PEDIATRIC MANAGEMENT IN ADVANCED NURSING PRACTICE**

2 Lecture Hours · 3 Lab Hours

Foundations of advanced clinical practice in the primary care of children, birth to 21 years with a family centered approach on growth and development, health promotion and management of common health problems. Prerequisite: NURS 5418, 5334.

### **NURS5307 – NEONATAL NURSING FROM BIRTH THROUGH 2 YEARS OLD**

2 Lecture Hours · 3 Lab Hours

Focuses on an interdisciplinary approach to the assessment, management, and coordination of care of patients with commonly encountered health care problems experienced in the Neonatal Intensive Care Unit and after discharge through 2 years of age, along with their families. Prerequisite: NURS 5438.

### **NURS5308 – NURSING INFORMATICS**

3 Lecture Hours · 0 Lab Hours

Focus on application of computer technology that supports the dissemination of health care data, information and knowledge. Selected software packages/applications are presented and used. Prerequisite: Graduate standing.

### **NURS5309 – TEACHING / LEARNING THEORIES, STRATEGIES, AND EVALUATION**

3 Lecture Hours · 0 Lab Hours

Teaching/learning theories, strategies, and evaluations for educators. Prerequisite: Graduate standing.

### **NURS5311 – NURSING MANAGEMENT IN THE HEALTH CARE ENVIRONMENT**

3 Lecture Hours · 0 Lab Hours

Considers development of theories of leadership and organizational behavior as applied to the health care arena. Prerequisite: NURS 5327 or NURS 5301 or concurrent enrollment.

### **NURS5313 – CLINICAL PROCEDURES FOR ADVANCED PRACTICE NURSES**

2 Lecture Hours · 3 Lab Hours

A theory and clinical procedures course designed for the Advanced Practice Nurse to acquire skills and procedures in the clinical management of selected patients. Prerequisite: NURS 5334 or Certificate program standing.

### **NURS5314 – INVASIVE PROCEDURES FOR ADVANCED PRACTICE NURSES**

2 Lecture Hours · 3 Lab Hours

A theory and clinical procedures course designed for the Advanced Practice Nurse to acquire invasive skills and procedures in the clinical management of selected patients. Prerequisite: NURS 5334 or Certificate Program standing.

### **NURS5315 – ADVANCED PATHOPHYSIOLOGY**

3 Lecture Hours · 0 Lab Hours

This course focuses on developing an advanced knowledge base of pathophysiology. Principles of biochemistry, molecular biology and nutrition are applied to disease processes. Prerequisite: Graduate Standing.

### **NURS5317 – ADVANCED PSYCHOPHARMACOLOGY**

3 Lecture Hours · 0 Lab Hours

The study of psychopharmacology practice for advanced practice nurses. Prerequisite: APRN (Master's Degree in Nursing, National Certification).

### **NURS5318 – ADVANCED PATHOPHYSIOLOGY FOR NURSE EDUCATORS**

3 Lecture Hours · 0 Lab Hours

This course focuses on developing an advanced knowledge base of pathophysiology. Principles of advanced physiology and pathophysiology and are applied to disease processes.

### **NURS5319 – ADVANCED PHARMACOLOGY FOR NURSE EDUCATORS**

3 Lecture Hours · 0 Lab Hours

Study of clinical pharmacological therapeutics for nurse educators.

### **NURS5326 – ADVANCED ASSESSMENT FOR NURSE EDUCATORS**

2 Lecture Hours · 1 Lab Hour

Apply theoretical foundations and clinical skills in comprehensive health assessment across the lifespan as applies to the nurse educator role.

### **NURS5327 – ANALYSIS OF THEORIES FOR NURSING**



**3 Lecture Hours · 0 Lab Hours**

Critical examination of philosophical and theoretical bases for nursing. Analysis of selected concepts and theories. Prerequisite: Graduate standing.

### **NURS5328 – THEORY AND RESEARCH APPLICATION IN NURSING**

**3 Lecture Hours · 0 Lab Hours**

Integration of theoretical and empirical elements of nursing research with emphasis on proposal development. Prerequisite: NURS 5327 and NURS 5301.

### **NURS5329 – ROLE OF THE NURSE EDUCATOR**

**3 Lecture Hours · 0 Lab Hours**

Investigation of the roles and functions of the nurse educator. Prerequisite: NURS 5301 and NURS 5327.

### **NURS5331 – ADVANCED CLINICAL NURSING PRACTICUM**

**12 Lecture Hours · 0 Lab Hours**

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills, and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4 Prerequisite: NURS 5425 or 5431 or 5436 or 5444 or 5539 or 5546 or 5453 or 5450. Good academic standing (GPA minimum 3.0). Graded F, R, P, W.

### **NURS5332 – ADVANCED CLINICAL NURSING PRACTICUM**

**12 Lecture Hours · 0 Lab Hours**

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills, and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1 to 4. Prerequisites: NURS 5425 or NURS 5431 or NURS 5434 or NURS 5436 or NURS 5444 or NURS 5539 or NURS 5546 or NURS 5453 or 5450. GPA 3.0 and Certificate Program standing. Graded F,R,P,W

### **NURS5334 – ADVANCED PHARMACOLOGY FOR NURSE PRACTITIONERS**

**3 Lecture Hours · 0 Lab Hours**

Study of clinical pharmacological therapeutics for advanced nursing practice. Prerequisite: NURS 5315.

### **NURS5339 – ROLES AND FUNCTIONS OF THE NURSE ADMINISTRATOR**

**1 Lecture Hour · 6 Lab Hours**

Examine and implement administrative and managerial roles in health care organizations. Prerequisite: NURS 5311; NURS 5328 or concurrent enrollment.

### **NURS5340 – MANAGEMENT SEMINAR AND PRACTICE**

**1 Lecture Hour · 6 Lab Hours**

Synthesize management, organizational, and leadership concepts and theories in selected health care settings. Prerequisite: NURS 5339 and 5342.

### **NURS5341 – FINANCIAL MANAGEMENT IN NURSING**

**2 Lecture Hours · 3 Lab Hours**

Analyze and apply financial management concepts to financial planning, budgeting, and reimbursement systems in health care. Prerequisite: NURS 5311 or MANA 5312; NURS 5301 or concurrent enrollment.

### **NURS5342 – MANAGEMENT OF NURSING OPERATIONS**

**2 Lecture Hours · 3 Lab Hours**

Examine effective strategic planning for health care systems. Prerequisite: NURS 5341.



## **NURS5343 – NURSING LEADERSHIP AND COMPLEX HEALTH CARE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Analyze leadership strategies in current and predicted health care systems including dimensions of workforce and workplace issues, leadership, and evidenced-based decision-making. Prerequisite: NURS 5327; NURS 5311 or MANA 5312 or concurrent enrollment.

## **NURS5347 – ADVANCED PRACTICE NURSING WOMEN'S HEALTH**

**3** Lecture Hours · **0** Lab Hours

Addresses concepts of health care of female patients throughout the life span. Explores the physiology of the reproductive continuum, including childbearing and clinical management approaches specific to the health care of women. Prerequisites: NURS 5418 or NURS 5316 or permission of instructor.

## **NURS5348 – NURSING CARE AT THE END OF LIFE**

**3** Lecture Hours · **0** Lab Hours

Addresses concepts of palliative care of patients with life limiting disease and their families. Explores the physiology of end stage disease processes, clinical approaches to pain and symptom management, societal issues and trends in end of life care, models of care delivery and the impact of personal values and beliefs about death. Prerequisite: Graduate Standing.

## **NURS5350 – ROLE OF THE NURSE IN ADVANCED PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Theory and application of the multiple roles of the advanced practice nurse within the health care system. Prerequisite: Graduate Standing.

## **NURS5360 – SIMULATION APPLICATION IN NURSING**

**2** Lecture Hours · **3** Lab Hours

Application of simulation in healthcare. Prerequisite: Graduate Standing.

## **NURS5361 – SPECIAL TOPICS IN CLINICAL PRACTICE**

**2** Lecture Hours · **3** Lab Hours

Advanced clinical practice with selected targeted patient populations. Prerequisite: NURS 5318, NURS 5319, NURS 5326.

## **NURS5362 – TEACHING PRACTICUM**

**0** Lecture Hours · **12** Lab Hours

The ratio of credit to clinical hours is 1:4. Nursing education preceptorship in selected health care sites with opportunities to apply clinical and educational knowledge, skills, and concepts in a guided, progressive context of nursing education. Prerequisite: NURS 5308 and NURS 5361; NURS 5329 or concurrent enrollment. Good academic standing (GPA 3.0). Graded: F,R,P,W.

## **NURS5370 – INDEPENDENT STUDY IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F,R,P,W. Permission of instructor. Graduate standing.

## **NURS5380 – INDEPENDENT STUDY IN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Detailed study and participation in a faculty sponsored research project. Topic and mode of study are agreed upon by the student and instructor prior to registration. Permission of instructor. Graded F,R,P,W.

### **NURS5382 – NURSING AND HEALTH CARE POLICY: ISSUES AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Analyze historical, current, and predicted global, national, state, and local health care policy processes. Prerequisite: NURS 5327 or NURS 5301.

### **NURS5390 – TOPICS IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS5393 – ADVANCED CLINICAL NURSING PRACTICE I**

**1** Lecture Hour · **6** Lab Hours

Development of advanced knowledge base of specialized clinical concepts and the application of this knowledge in selected clinical areas. Prerequisite: Graduate standing.

### **NURS5394 – ADVANCED CLINICAL NURSING PRACTICE II**

**1** Lecture Hour · **6** Lab Hours

Expanded background in a selected clinical area with emphasis on analysis and synthesis of clinical data, clinical judgment, and management of patients and families' care. Prerequisite: NURS 5393.

### **NURS5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F,R.

### **NURS5418 – ADVANCED HEALTH ASSESSMENT AND DIAGNOSTIC REASONING**

**2** Lecture Hours · **6** Lab Hours

Apply theoretical foundations and clinical skills in comprehensive health assessment across the lifespan. Prerequisite: NURS 5301 and NURS 5334 or concurrent enrollment. These items must be cleared with the Clinical Coordinator: Unencumbered Texas RN License; Current CPR (Cardiopulmonary Resuscitation) card; Current PALS (Pediatric Advanced Life Support) card (Acute Care Pediatric only); Current immunizations.

### **NURS5424 – PSYCHIATRIC-MENTAL HEALTH NURSING I**

**2** Lecture Hours · **6** Lab Hours

Advanced clinical management of individuals, families, and groups at risk for and experiencing acute and chronic psychiatric disorders. Prerequisite: NURS 5303; NURS 5305 or concurrent enrollment, or Certificate Program standing.

### **NURS5425 – PSYCHIATRIC-MENTAL HEALTH NURSING II**

**2** Lecture Hours · **6** Lab Hours

Advanced clinical management of individuals, families, and groups at risk for and experiencing complex psychiatric disorders. Prerequisite: NURS 5328 and NURS 5424; NURS 5306 or concurrent enrollment.

### **NURS5430 – FAMILY NURSING I**

**2** Lecture Hours · **6** Lab Hours

Focus on advanced knowledge of acute, chronic, and complex health problems in the primary care management of individuals across the lifespan. Prerequisite: NURS 5305 and 5306; 5313 or concurrent enrollment or Certificate Program standing.

### **NURS5431 – FAMILY NURSING II**

**2 Lecture Hours · 6 Lab Hours**

Focus on advanced knowledge in the management of patients and families throughout the lifespan. Prerequisite: NURS 5328 and 5430; 5303 or concurrent enrollment.

### **NURS5433 – EMERGENCY NURSE PRACTITIONER ACROSS THE LIFESPAN I**

**2 Lecture Hours · 6 Lab Hours**

Advanced clinical management of individuals across the lifespan with episodic and urgent health care needs. Prerequisite: NURS 5305 and 5306; 5314 or concurrent enrollment.

### **NURS5434 – EMERGENCY NURSE PRACTITIONER ACROSS THE LIFESPAN II**

**2 Lecture Hours · 6 Lab Hours**

Advanced clinical management of individuals across the lifespan with emergent health care needs requiring resuscitative measures for potentially life threatening alterations. Prerequisite: NURS 5328 and 5433; 5303 or concurrent enrollment.

### **NURS5435 – ACUTE CARE NURSING I**

**2 Lecture Hours · 6 Lab Hours**

Focuses on advanced knowledge of medical-surgical nursing in managing adults with secondary and tertiary health care needs. Prerequisite: NURS 5305; 5314 or concurrent enrollment or Certificate Program standing.

### **NURS5436 – ACUTE CARE NURSING II**

**2 Lecture Hours · 6 Lab Hours**

Focuses on an interdisciplinary approach to the management and coordination of secondary and tertiary care for adults with complex multisystem dysfunction. Prerequisite: NURS 5328, 5435; 5303 or concurrent enrollment.

### **NURS5438 – PERINATAL/NEONATAL NURSING OF HIGH-RISK MATERNAL/FETAL DYAD**

**2 Lecture Hours · 6 Lab Hours**

Focuses on advanced knowledge of perinatal/neonatal nursing in the high-risk pregnancy and neonate with secondary and tertiary health care needs along with their families. Prerequisite: NURS 5314, 5418 or permission of instructor or Certificate Program standing.

### **NURS5441 – ACUTE CARE PEDIATRIC NURSING**

**2 Lecture Hours · 6 Lab Hours**

Focus is on advanced, interdisciplinary practice to assess, diagnose, and manage acute and critical, single and multi-system health problems of children birth to 21 years in secondary and tertiary care settings. Prerequisite: NURS 5306; 5314, 5442 or concurrent enrollment; or Certificate Program standing.

### **NURS5442 – PRIMARY CARE PEDIATRIC NURSING**

**2 Lecture Hours · 6 Lab Hours**

Focus is on integration of acquired theoretical and empirical knowledge in the assessment, diagnosis, and management of multiple common acute and stable chronic health problems in children birth to 21 years. Prerequisite: NURS 5306; 5313 or 5314 or concurrent enrollment; or Certificate Program standing.

### **NURS5444 – ADVANCED NURSING CARE OF PEDIATRIC PATIENTS WITH COMPLEX PROBLEMS**

**2 Lecture Hours · 6 Lab Hours**

Clinical management of complex health problems of pediatric patients birth to 21 years within the family system. Prerequisite: NURS 5328; NURS 5441 or NURS 5442 or NURS 5539; and NURS 5303 or

concurrent enrollment; or Certificate Program standing.

### **NURS5446 – NEONATAL NURSING II**

**4** Lecture Hours · **0** Lab Hours

Clinical management of the high-risk neonate using evidence based-knowledge, research, pharmacological, and technological therapies. Focus on the following systems: pulmonary, cardiovascular, gastrointestinal, hepatic, renal, and neurologic. Prerequisite: NURS 5204

### **NURS5447 – NEONATAL NURSING III**

**4** Lecture Hours · **0** Lab Hours

Clinical management of the high-risk neonate using evidence based knowledge, research, pharmacological, and technological therapies. Focus on the following systems: hematologic, skeletal, integumentary, immunologic, and metabolic/endocrine. Includes clinical management of complex health problems affecting infants (birth to 2 years of age) and their families including chronic care and ethical issues. Prerequisite: NURS 5446

### **NURS5450 – NEONATAL NP CLINICAL PRACTICE**

**0** Lecture Hours · **16** Lab Hours

Integration of clinical management of the high-risk neonate through clinical preceptorships in selected health practice sites with application of knowledge, skills and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4. Prerequisite: NURS 5334 and NURS 5316 and NURS 5204.

### **NURS5451 – ADULT/GERONTOLOGY PRIMARY CARE NURSING I**

**2** Lecture Hours · **6** Lab Hours

Focus on advanced knowledge of chronic and complex health problems in the primary care management including age groups from adolescence through old age. Prerequisite: NURS 5305

### **NURS5453 – ADULT/GERONTOLOGY NURSING III**

**1** Lecture Hour · **9** Lab Hours

Continued focus on advanced knowledge and clinical practice in the management of adults of all ages, their families, and their communities. Prerequisite: NURS 5552

### **NURS5470 – INDEPENDENT STUDY IN NURSING**

**4** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Prereq: Permission of instructor. Graded F,R,P,W.

### **NURS5525 – PSYCHIATRIC-MENTAL HEALTH NURSING**

**3** Lecture Hours · **6** Lab Hours

Focus on diagnosis and pharmacological and nonpharmacological management of individuals, families and groups experiencing mental illnesses and addictions. Prerequisite: NURS 5424, 5328 or concurrent enrollment.

### **NURS5532 – FAMILY NURSING II**

**3** Lecture Hours · **6** Lab Hours

A continuation of NURS 5431 with progressive analysis and clinical nursing judgment and management of families in health and illness. Prerequisite: NURS 5431, 5328 or concurrent enrollment.

### **NURS5536 – ACUTE CARE NURSING II**

**3** Lecture Hours · **6** Lab Hours

Focuses on an interdisciplinary approach to the management and coordination of secondary and tertiary care for adults with complex multisystem dysfunction. Prerequisite: NURS 5435, 5328 or concurrent enrollment.

### **NURS5537 – NEONATAL NURSING II**

**5** Lecture Hours · **0** Lab Hours

Clinical management of the high-risk neonate using evidence based-knowledge, research, pharmacological, and technological therapies. Focus on the following systems: pulmonary, cardiovascular, gastrointestinal, hepatic, renal, and neurologic. Prerequisite: NURS 5204

### **NURS5539 – NEONATAL NURSING**

**3** Lecture Hours · **6** Lab Hours

Focuses on an interdisciplinary approach to the assessment, management, and coordination of secondary and tertiary care of neonates with complex multi-system dysfunction, along with their families. Prerequisite: NURS 5438.

### **NURS5546 – ADULT AND GERONTOLOGICAL NURSING**

**3** Lecture Hours · **6** Lab Hours

Focus on advanced knowledge in the management of adults (age 12 and older), their families, and their communities with emphasis on special problems of adolescents, women, and elders in a variety of settings. Prerequisite: NURS 5328, 5420; and NURS 5303 or concurrent enrollment.

### **NURS5552 – ADULT/GERONTOLOGY NURSING II**

**2** Lecture Hours · **9** Lab Hours

Focus on advanced knowledge in the management of adults (age 12 and older), their families, and their communities with emphasis on special problems of the adolescent, women, and elders in a variety of settings. Prerequisite: NURS 5451

### **NURS5631 – ADVANCED CLINICAL NURSING PRACTICUM**

**24** Lecture Hours · **0** Lab Hours

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4. Prerequisite: NURS 5425 or 5431 or 5436 or 5444 or 5539 or 5546 or 5453 or 5450. Good academic standing (GPA 3.0). Graded F,R,P,W.

### **NURS5632 – ADVANCED CLINICAL NURSING PRACTICUM - CERT**

**24** Lecture Hours · **0** Lab Hours

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills, and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4. Prerequisite: NURS 5425 or 5431 or 5434 or 5436 or 5539 or 5444 or 5546 or 5453 or 5450. Good academic standing and Certificate Program standing (3.0 GPA) Graded: F,R,P,W

### **NURS5670 – INDEPENDENT STUDY IN NURSING**

**6** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Prereq: Permission of instructor. Graded F,R,P,W.

### **NURS5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P.

### **NURS6170 – INDEPENDENT STUDY IN NURSING**

1 Lecture Hour · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F,R, P.

### **NURS6190 – SPECIAL TOPICS IN NURSING**

1 Lecture Hour · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6270 – INDEPENDENT STUDY IN NURSING**

2 Lecture Hours · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, R, P.

### **NURS6290 – TOPICS IN NURSING**

2 Lecture Hours · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6301 – THEORETICAL EVOLUTION IN SCIENCE**

3 Lecture Hours · 0 Lab Hours

Philosophies of science and epistemologies, their influence on knowledge development for nursing practice, and strategies for theory development and analysis. Prerequisite: Graduate standing.

### **NURS6302 – ISSUES IN STUDYING THE HEALTH OF CULTURALLY DIVERSE AND VULNERABLE POPULATIONS**

3 Lecture Hours · 0 Lab Hours

Social and cultural factors affecting health among sub-populations defined by age, education, gender, ethnicity, culture, religion, occupation, vulnerability, income and geography. Prerequisite: Graduate standing. DNP or PhD program.

### **NURS6303 – CULTURE OF SCIENCE**

3 Lecture Hours · 0 Lab Hours

Professional, financial, socio-political, ethical and legal issues associated with the conduct of research and the relationships between research and health policy development and implementation. Prerequisite: Graduate standing.

### **NURS6304 – MEASUREMENT IN CULTURALLY DIVERSE AND VULNERABLE POPULATIONS**

3 Lecture Hours · 0 Lab Hours

Evaluate measurement tools/instruments for studying culturally diverse and vulnerable populations. Prerequisite: NURS 6301, Theoretical Evolution in Science, or permission of instructor. Course is predicated on prior learning related to concept analysis, basic statistics including correlation.

### **NURS6305 – QUALITATIVE RESEARCH**

3 Lecture Hours · 0 Lab Hours

Philosophical foundation for and methodological issues in using qualitative approaches for scientific and knowledge development. Prerequisite: Graduate standing.

### **NURS6306 – RESEARCH DESIGN**

3 Lecture Hours · 0 Lab Hours

Application of advanced nursing research methods to design studies that improve health outcomes in culturally diverse populations. Prerequisites: NURS 6303 and NURS 6304 or permission of instructor.

### **NURS6308 – RESEARCH SEMINAR**

3 Lecture Hours · 0 Lab Hours

Implements the research process with faculty guidance. Learning activities based on student and faculty interest. May be repeated to meet student learning needs. Prerequisite: Recommendation of the advisor; permission of the instructor.

### **NURS6309 – SCIENTIFIC PRODUCTS: PREPARATION DISSEMINATION (DELIVERY)**

3 Lecture Hours · 0 Lab Hours

Provides experiences in the development of scientific products for dissemination. Prerequisite: Graduate standing.

### **NURS6310 – PROPOSAL DEVELOPMENT SEMINAR**

3 Lecture Hours · 0 Lab Hours

Development and critique of doctoral dissertation proposal. May be repeated. Prerequisite: Successful completion of diagnostic evaluation, NURS 6308 (Research Seminar).

### **NURS6318 – PARAMETRIC STATISTICS FOR HEALTHCARE RESEARCH**

3 Lecture Hours · 0 Lab Hours

Advanced knowledge and skills to use biostatistics effectively in different research designs and data analyses. Use of a statistical software package to manipulate datasets and perform statistical analyses. Emphasis will be placed on parametric statistical methods for complex research questions and designs. Prerequisite of a graduate-level introductory statistics course.

### **NURS6319 – PSYCHOMETRIC AND NONPARAMETRIC STATISTICS FOR HEALTHCARE RESEARCH**

3 Lecture Hours · 0 Lab Hours

Basic knowledge and skills to select the appropriate biostatistical analysis for different research designs, analyze data, interpret statistical results, and understand research articles in professional journals. Emphasis will be placed on reliability and validity of instruments commonly used in healthcare; outcome measurement in health care; common research designs in health care research; nonparametric statistics for dependent samples and independent samples; logistic regression; and survival analysis. Prerequisite: Graduate-level introductory statistics course.

### **NURS6320 – LEADERSHIP IN HEALTH CARE SYSTEMS**

3 Lecture Hours · 0 Lab Hours

Focuses on leadership and organizational theories and financial principles to promote quality improvement initiatives in a selected practice. DNP or PhD Program.

### **NURS6321 – EPIDEMIOLOGY**

3 Lecture Hours · 0 Lab Hours

Principles of epidemiology: Introduces the basic principles and biostatistical methods of epidemiology and demonstrates their applicability to population health. Prerequisite: Doctoral standing. PhD or DNP Program.

### **NURS6323 – PRACTICE SCHOLARSHIP**

3 Lecture Hours · 0 Lab Hours

Focuses on clinical scholarship and analytical methods for evidence-based practice. Prerequisite: NURS 6320 or concurrent enrollment.

### **NURS6324 – CLINICAL INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Focuses on the selection and use of information systems/technology to provide health care and to evaluate patient care programs, outcomes, and systems. Prerequisite: Doctoral standing. DNP or PhD Program.

### **NURS6325 – ADVANCED PRACTICE NURSING FOR SELECTED POPULATIONS**

**3** Lecture Hours · **0** Lab Hours

Apply advanced concepts in pathophysiology and technology in managing selected patient populations. Prerequisite: DNP Program.

### **NURS6326 – PRACTICE SCHOLARSHIP**

**3** Lecture Hours · **0** Lab Hours

Seminar to develop a practice scholarship project. Prerequisite: NURS 6323.

### **NURS6370 – INDEPENDENT STUDY IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, R, P.

### **NURS6382 – HEALTH CARE POLICY**

**3** Lecture Hours · **0** Lab Hours

Analyze historical, current, and predicted global, national, state, and local health care policy processes. Prerequisite: Doctoral standing.

### **NURS6390 – TOPICS IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: Admission to candidacy for the Doctor in Nursing degree.

### **NURS6470 – INDEPENDENT STUDY IN NURSING**

**4** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, R, P.

### **NURS6490 – TOPICS IN NURSING**

**4** Lecture Hours · **0** Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6620 – DNP PRACTICUM I**

**18** Lecture Hours · **0** Lab Hours

270 Clinical Hours. Emphasis on the development of advance practice expertise in the management of health problems in selected populations. Prereq: NURS 6326 or concurrent enrollment. Good academic standing (GPA 3.0). Grade: F,R,P,W.



## **NURS6621 – DNP PRACTICUM II**

**18** Lecture Hours · **0** Lab Hours

270 Clinical Hours - Emphasis on the development of advance clinical practice expertise in the management of health problems in selected populations. Preq: NURS 6620 and DNP status.

## **NURS6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P, W. Prerequisite: Admission to candidacy for the Doctor in Nursing degree.

## **NURS6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded F, R, P. Prerequisite: Admission to candidacy for the Doctor in Nursing degree.

## **NURS7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **NURS-IS Courses**

### **NURS-IS5370 – INDEPENDENT STUDY IN NURSING**

**8** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[Biology](#)

[Chemistry &  
Biochemistry](#)

[Earth and Environmental  
Sciences](#)

[Interdisciplinary Science](#)

[Mathematics](#)

[Physics](#)

[Psychology](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Biology

College of Science

**Chair Jonathan Campbell**

**Chair Allan Clay Clark**

**Chair Laura Gough**

Web [www.uta.edu/biology/](http://www.uta.edu/biology/)

Phone 817.272.2871

Fax 817.272.2855

[337 Life Sciences](#)

---

### Degrees / Certificates

#### Master's Degrees

Biology, M.S.

#### Doctoral Degrees

Quantitative Biology, B.S to Ph.D.

Quantitative Biology, Ph.D.

---

### Graduate Faculty

[Todd Castoe](#)  
[Woo-Suk Chang](#)  
[Allan Clay Clark](#)  
[Jeffery Demuth](#)  
[John Fondon](#)  
[Matthew Fujita](#)  
[Jason Kubinak](#)  
[Maeli Melotto](#)  
[Mark Pellegrino](#)  
[Jorge Rodrigues](#)  
[Eric Smith](#)  
[Matthew Walsh](#)  
[Sen Xu](#)  
[Kai Zhu](#)

#### Professor

[Jonathan Campbell](#)  
[Paul Chippindale](#)  
[Thomas Chrzanowski](#)  
[Daniel Formanowicz](#)  
[Bernard Frye](#)  
[James Grover](#)  
[Robert McMahon](#)  
[James Robinson](#)

#### Associate Professor

[David Bernard](#)  
[Esther Betran](#)  
[Laura Gough](#)  
[Sophia Passy](#)  
[Michael Roner](#)

#### Assistant Professor

[Shawn Christensen](#)  
[Cedric Feschotte](#)  
[Julian Hurdle](#)  
[Laura Mydlarz](#)  
[Andre Pires Da Silva](#)  
[Ellen Pritham](#)

---

### Graduate Advisors

#### [Gloria Burlingham](#)

*Biology, M.S.*  
*Biology, Non-Degree Seeking*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

#### [Paul Chippindale](#)

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

#### [Shawn Christensen](#)

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

#### [Michael Roner](#)

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

---

### Department Information

#### Courses

## Department Information

#### Objective

#### Admission

- [Master of Science](#)
- [Doctor of Philosophy](#)
- [B.S. - Ph.D. Track Students](#)
- [Ph.D. Students](#)

#### Degree Requirements

- [Master of Science](#)
- [Doctor of Philosophy](#)

#### Objective

The program leading to the degree of Master of Science in biology is designed to provide graduate education that will prepare students for vocations in industry, government, and teaching, and to pursue further graduate education leading to the doctorate. The doctoral program is designed to train students to apply sophisticated quantitative techniques to solving basic and applied problems in biology. Students in this program will attain substantially greater quantitative skills than in traditional doctoral programs in the biological sciences, providing them with a competitive advantage in business, industry, government, and academia.

## Admission

The following are minimal requirements for entrance into the graduate program in Biology. However, satisfying or exceeding these requirements does not guarantee admission to the program. Admission to the program is determined solely by the Biology Graduate Studies Committee and the Graduate School and is based on an evaluation of all pertinent aspects of an applicant's record.

### Master of Science

Admission status in the Master of Science program is determined as follows:

#### Unconditional Admission

Decisions are based on consideration of all the information listed below and are not based on any single criterion alone.

1. A Bachelor's degree in Biology or a Bachelor's degree in some other discipline with at least 12 hours of advanced level coursework (junior or senior level courses) in Biology.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School. Applicants overall GPA in the Sciences and within Biology are also considered.
3. A satisfactory score on the Verbal and Quantitative sections of the Graduate Record Exam. Successful students tend to have a minimum combined total score of 1000 on the Verbal and Quantitative sections, with strong performance on the Quantitative section of the GRE exam.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential for success in graduate school.
5. Evidence of previous research experience may also be considered.
6. International students whose native language is not English must provide a score on the Test of Spoken English (TSE) of at least 45, a minimum score of 23 on the Speaking portion of the TOEFL iBT exam or a minimum score of 7 on the Speaking portion of the IELTS exam.

#### Denial of Admission

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria listed above.

#### Probationary Admission

If an applicant does not meet a majority of standards for unconditional admission outlined above, he or she may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in his/her first 12 hours of graduate coursework at UT Arlington.

#### Deferred and Provisional Admission

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

## **Fellowships and Scholarships**

Students that are unconditionally admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

## **Doctor of Philosophy**

Students interested in pursuing the Ph.D. in the Biology Department may apply for the B.S. - Ph.D. Track or the doctoral program directly depending on their background. The B.S. - Ph.D. Track is the point of entry into doctoral studies for students with a Bachelor's degree in Biology, but without 30 hours of graduate level coursework in Biology or a master's degree in Biology. Students who have already accomplished these goals may apply directly for the doctoral program as Ph.D. students. Degree requirements are the same for both groups (see below).

## **B.S. - Ph.D. Track Students**

Admission status in the B.S. - Ph.D. Track program is determined as follows:

### **Unconditional Admission**

Decisions are based on consideration of all the information listed below and are not based on any single criterion alone.

1. A Bachelor's degree in Biology or a Bachelor's degree in some other discipline with at least 12 hours of advanced level coursework (junior or senior level courses) in Biology.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School. Applicants overall GPA in the Sciences and within Biology are also considered.
3. A satisfactory score on the Verbal and Quantitative sections of the Graduate Record Exam. Successful students tend to have a minimum combined total score of 1100 on the Verbal and Quantitative sections, with strong performance on the Quantitative section of the GRE exam.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential for success in graduate school.
5. Evidence of previous research experience may also be considered.
6. International students whose native language is not English must provide a score on the Test of Spoken English (TSE) of at least 45, a minimum score of 23 on the Speaking portion of the TOEFL iBT exam or a minimum score of 7 on the Speaking portion of the IELTS exam.

### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria listed above.

### **Probationary Admission**

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

### **Deferred and Provisional Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the

admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Fellowships and Scholarships**

Students that are unconditionally admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

### **Ph.D. Students**

Admission status in the doctoral program is determined as follows:

#### **Unconditional Admission**

Decisions are based on consideration of all the information listed below and are not based on any single criterion alone.

1. A master's degree in Biology or at least 30 hours of graduate level coursework in Biology.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School. If an Applicant has a Master's degree, the GPA from their Bachelor's degree, as calculated by the Graduate School, will also be considered. If they have 30 hours of graduate coursework but no degree, the GPA from that 30 hours, as calculated by the Graduate School, will also be considered.
3. A satisfactory score on the Verbal and Quantitative sections of the Graduate Record Exam. Successful students tend to have a minimum combined total score of 1100 on the Verbal and Quantitative sections, with strong performance on the Quantitative section of the GRE exam.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential for success in a doctoral program in quantitative biology.
5. Evidence of previous research experience including publications resulting from previous graduate work may also be considered.
6. International students whose native language is not English must provide a score on the Test of Spoken English (TSE) of at least 45, a minimum score of 23 on the Speaking portion of the TOEFL iBT exam, or a minimum score of 7 on the Speaking portion of the IELTS exam.

#### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria listed above.

#### **Probationary Admission**

The Department of Biology does not as a matter of course admit doctoral students on a probationary basis. Under exceptional circumstances, an applicant that does not meet the standards for unconditional admission outlined above, may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

#### **Deferred and Provisional Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

## Fellowships and Scholarships

Students that have no provisional admission conditions to meet will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

## Degree Requirements

Supporting work outside the student's major area may be taken in botany, chemistry, earth & environmental sciences, mathematics, microbiology, physics, and zoology. Approved courses in city and regional planning, civil engineering, environmental science and engineering, philosophy, psychology, and sociology may also be taken in support of the student's program. Subject to written approval by the Graduate Advisor and within the limitations stated in the General Graduate School Regulations, a student may take up to nine hours of coursework from among courses listed under Biology at the 3000 or 4000 levels.

## Master of Science

Non-thesis and thesis options are offered. The non-thesis option is designed to meet the needs of practicing teachers or those intending to enter the teaching profession. Students enrolled in the non-thesis option are required to complete 36 hours, including 24 hours of formal coursework in biology plus two hours of 5101, 5391, and sufficient additional hours to complete course requirements. Students enrolled in the thesis option are required to complete 30 hours, including 18 hours of formal coursework (of which BIOL 5314 is required), two hours of 5101, 5698, and sufficient additional hours to complete degree requirements.

## Doctor of Philosophy

The degree of Doctor of Philosophy in Quantitative Biology requires distinguished attainment both in scholarship and in research. In addition to meeting the minimum requirements of a planned course of study, the ultimate basis for conferring the degree must be the demonstrated ability to do independent and creative work and the exhibition of a profound grasp of the subject matter within the field.

**Mathematics:** Students will be expected to have (or complete during their first year of residence) a strong quantitative background including a formal course in differential and integral calculus (i.e., Calculus I).

**General Course Requirements:** A total of 60 credit hours should normally be completed including 24 hours of required and elective courses, and 36 hours of research courses. All students in the program are required to take BIOL 5314 (Biometry), Professional Development (BIOL 5102) and two seminar courses (2 x BIOL 5101) as part of their required courses.

**Other requirements:** Each student will make three research presentations that are open to the entire department. These may include the proposal defense, a research progress report, and the dissertation defense.

**Biology Tracks:** Students should follow one of the Biology Tracks described below: Ecology and Evolution, Genome Biology, or Microbiology and Molecular Biology.

**Track Specific Quantitative Requirements:**

**Ecology and Evolution:** Students in this track are required to take Advanced Biometry (BIOL 5361) and Experimental Design (BIOL 5362). They will also be expected to have (or complete during their first year of residence) an additional calculus course (i.e., Calculus II).

**Genome Biology:** Students in this track are required to take one of the following courses in quantitative biology: Bioinformatics (BIOL 5340), Genetics Methods Lab (BIOL 5420), Molecular



Evolution (BIOL 5336), or Population Genetics (BIOL 5364).

Microbiology and Molecular Biology: Students in this track are required to take one of the following courses in quantitative biology: Bioinformatics (BIOL 5340), Biological Modeling (BIOL 5333), or Methods in Molecular Microbiology (BIOL 5421).

Track Specific Additional Courses:

Ecology and Evolution: Students in this track are required to take 6 credit hours from among the following courses: Amphibian Biology (BIOL 5344), Behavioral Ecology (BIOL 5337), Biogeography (BIOL 5320), Biological Modeling (BIOL 5333), Community Ecology (BIOL 5315), Conservation Biology (BIOL 5350), Environmental Microbiology (BIOL 5351), Evolution (BIOL 5311), Landscape Ecology (BIOL 5328), Limnology (BIOL 5354), Marine Biology (BIOL 5357), Plant Ecology (BIOL 5325), Reptile Biology (BIOL 5310), Theoretical Systematics (BIOL 5367), Wetlands Ecology (BIOL 5326), or as advised by their supervisory committee.

Genome Biology: Students in this track are required to take 9 credit hours from among the following courses: Advanced Genetics (5312), Advanced Molecular Biology (5331), Developmental Biology (5330), Essentials of Genomics (5335), Evolution (5311), Evolution of Development (5313), Genome Structure and Dynamics (5308), Human Genetics (5319), Mechanisms and Regulation of Mobile DNA (5334), and Mobile DNA and Genome Evolution (5339), or as advised by their supervisory committee.

Microbiology and Molecular Biology: Students in this track are required to take 9 credit hours from among the following courses including: Advanced Molecular Biology (BIOL 5330), Environmental Microbiology (5351), Immunology (BIOL 5309), Microbial Genetics (BIOL 5302), Microbial Physiology (BIOL 5445), and Virology (BIOL 5304), or as advised by their supervisory committee.

Additional Courses: Students in the program are required to take 6 hours of additional courses as advised by their supervisory committee.

Research hours: Finally, 36 hours of research, including 9 hours of dissertation in the final semester (BIOL 6999), are required from among the following courses: BIOL 5101, 5200, 5291, 5391, 5193-5693, 5398, 5698, or 5998, or BIOL 6191, 6291, 6391, 6491, 6591, or 6691 (these courses can be repeated for credit).

## BIOL Courses

### BIOL5101 – SPECIAL TOPICS IN BIOLOGY

1 Lecture Hour · 0 Lab Hours

Seminar on significant biological research. May be repeated for credit. Prerequisite: consent of the instructor.

### BIOL5102 – PROFESSIONAL DEVELOPMENT

1 Lecture Hour · 0 Lab Hours

This course will provide senior graduate students with important information regarding various aspects of their professional development including job searching, interviewing, stress and time management, and professional ethics.

### BIOL5193 – RESEARCH IN BIOLOGY

1 Lecture Hour · 0 Lab Hours

Conference course in which the student undertakes intensive investigation of topics under the supervision of a staff member. Prerequisite: consent of the instructor. Graded P/F/R.

### BIOL5291 – INDIVIDUAL PROBLEMS IN BIOLOGY



**2 Lecture Hours · 0 Lab Hours**

Individual research projects supervised by a faculty member. Prerequisite: consent of the instructor.

### **BIOL5293 – RESEARCH**

**2 Lecture Hours · 0 Lab Hours**

### **BIOL5301 – LABORATORY ROTATION**

**6 Lecture Hours · 0 Lab Hours**

This course is an elective designed to enable students to choose a major advisor and laboratory. Rotations among two or three faculty laboratories will familiarize students with faculty research interests, sharpen individual research skills, and expose students to different study systems, instruments, and research methods. May only be taken once for credit by MS students; may be repeated for credit once by Ph.D. students.

### **BIOL5302 – MICROBIAL GENETICS**

**3 Lecture Hours · 0 Lab Hours**

Consideration of the nature, expression and regulation of the genetic processes in micro-organisms. Prerequisites: BIOL 2451 and 3315 or consent of the instructor.

### **BIOL5304 – VIROLOGY**

**3 Lecture Hours · 0 Lab Hours**

The nature, reproduction and host-cell interactions of viruses and animals. Emphasizes molecular aspects of viral replication and the molecular basis of pathogenesis. Prerequisite: consent of the instructor.

### **BIOL5306 – SCIENTIFIC WRITING**

**3 Lecture Hours · 0 Lab Hours**

Discussion and critique of student's writing in peer response workshop groups. This course offers the opportunity for students to learn how to identify and fix problems in scientific texts. In order to enroll in this course, students must be actively writing a paper, proposal, poster, dissertation, or any other scientific text. Instructor's permission to enroll in the course is required.

### **BIOL5308 – GENOME STRUCTURE AND DYNAMICS**

**3 Lecture Hours · 0 Lab Hours**

This course will describe how genes and genomes are organized in a variety of species from all kingdoms of life and will provide a detailed overview of the molecular mechanisms underlying the function and evolution of genomes. Particular emphasis will be given to the human genome project and its biomedical implications. Prerequisite: BIOL 3315.

### **BIOL5309 – IMMUNOBIOLOGY**

**3 Lecture Hours · 0 Lab Hours**

This course is designed to acquaint students with the cellular processes involved in the generation of an immune response. It will provide students with detailed knowledge of the cells and organs of the immune system, their organization and diversity and their specialized functions at different anatomical locations. The importance of immune cell receptors and cytokines in cellular interactions and co-ordination of immunological mechanisms is also emphasized.

### **BIOL5310 – SELECTED TOPICS IN BIOLOGY**

**3 Lecture Hours · 0 Lab Hours**

Topics may vary depending on the needs and interests of the students. May be repeated for credit. Prerequisite: consent of the student's thesis committee and the current course instructor.

### **BIOL5311 – EVOLUTION**

**3** Lecture Hours · **0** Lab Hours

Study of the origin of living systems and the mechanism of their evolution. Prerequisite: BIOL 3315 or equivalent or consent of the instructor.

### **BIOL5312 – ADVANCED GENETICS**

**3** Lecture Hours · **0** Lab Hours

Mechanisms of transmission and function of genetic material. Covers fundamental concepts in transmission genetics including: genotype/phenotype relationships; inheritance; linkage; genome organization; and gene expression. Experimental and quantitative approaches to genetic analyses are emphasized. Prerequisite: consent of the instructor.

### **BIOL5313 – EVOLUTION OF DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

The diversity of animal and plant forms can largely be traced to evolutionary changes in the genes that control the development of the embryo. Changes in when and where these genes are active have been important in the diversification of body form. A major goal of this course is to provide an interdisciplinary framework for studies related to evolution, genetics, and development. The course will mainly consist of lectures and seminars; relevant scientific papers will be read and commented on in class. Prerequisite: BIOL 3315.

### **BIOL5314 – BIOMETRY**

**3** Lecture Hours · **0** Lab Hours

An examination of statistical methods and procedures in relation to the design of biological experiments and the analysis of their results. Prerequisite: consent of the instructor.

### **BIOL5315 – COMMUNITY ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

An investigation of the effects of interspecific interactions on the distribution and abundance of organisms. Prerequisite: consent of the instructor.

### **BIOL5316 – ADVANCED EVOLUTIONARY BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

An analysis of existing biological phenomena with regard to their selective advantage in biological systems. Prerequisite: BIOL 5311 or consent of the instructor.

### **BIOL5317 – BACTERIAL PATHOGENESIS**

**3** Lecture Hours · **0** Lab Hours

Host-pathogen relationships in microbial diseases. Topics include bacterium-host interactions, pathogens and pathogenic factors; techniques in pathogenesis research; molecular mechanisms of pathogenesis by major bacterial pathogens; antimicrobial compounds and resistance to antibiotics; and discussion of human genomics and susceptibility to infections. Prerequisites: BIOL 3312 and BIOL 3444 must have a B or better in these courses.

### **BIOL5319 – HUMAN GENETICS**

**3** Lecture Hours · **0** Lab Hours

This course will enable students to comprehend the basic principles of genetics applied to human inheritance and disease, to interpret the research strategies aimed to identify and study the genes responsible for diverse functions and traits, as well as to assess the consequences of the genetic technologies in our society.

### **BIOL5320 – BIOGEOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

The role of natural and artificial transport, population pressure and limiting agencies are examined in the light of the patterns of distribution of living organisms. Prerequisite: consent of the instructor.

### **BIOL5325 – PLANT ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

An introduction to plant ecology including physiological, population, community and ecosystem ecology.

### **BIOL5326 – WETLANDS ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

An introduction to wetland ecology including the formation of wetlands, biogeochemistry of wetland soils, hydrology and biotic adaptations to wetland environments.

### **BIOL5327 – QUANTITATIVE ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

A presentation of quantitative methods used in the design of experiments, collection and analysis of data associated with research in population, community and landscape ecology.

### **BIOL5328 – LANDSCAPE ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

Landscape ecology focuses on the spatial organization of the landscape mosaic and the flows of energy, nutrients, and species among landscape elements and ecosystems.

### **BIOL5330 – DEVELOPMENTAL BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

The primary goal of this course is to describe how organismic complexity is generated during embryonic and post-embryonic development. The course will cover current areas of research in developmental biology, which include: the roles of genetic networks, induction events, cell lineage, maternal inheritance, cell-cell communication, and hormonal control in developmental processes in well-suited organisms such as vertebrates, insects, and nematodes.

### **BIOL5331 – ADVANCED MOLECULAR BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Molecular biology, protein-nucleic acid interactions, nucleic acid biochemistry, and the RNA World.

### **BIOL5333 – BIOLOGICAL MODELING**

**3** Lecture Hours · **0** Lab Hours

Computational and mathematical techniques for representing biological processes, including dynamical systems, simulation, and stochastic processes, using examples from ecology, evolution, and other areas of biology. Prerequisite: consent of the instructor.

### **BIOL5334 – MOBILE DNA MECHANISMS & REGULATION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate course that covers the classification of transposable elements, and the mechanisms and regulation of transposition in a broad range of organisms. In addition to traditional lectures given by the instructor, students will present and discuss papers among the classic and recent literature on the topic.

### **BIOL5335 – ESSENTIALS OF GENOMICS**

**3** Lecture Hours · **0** Lab Hours

An integrative approach to genome science, combining elements of genetics, statistics and bioinformatics. Current technologies used in genomics analysis will be presented.

### **BIOL5336 – MOLECULAR EVOLUTION**

**3** Lecture Hours · **0** Lab Hours

An exploration of how genes and genomes evolve at the molecular level. The presentation uses the theoretical framework provided by population genetics to analyze molecular biology data.

### **BIOL5337 – BEHAVIORAL ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

Introduction to predictive modeling techniques used in studying behavior and ecology of animals. Includes optimization, dynamic optimization, utility theory, and game theory. Prerequisite: consent of the instructor.

### **BIOL5339 – MOBILE DNA & GENOME EVOLUTION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate discussion course that tackles the broad topic of the role of transposable elements in the evolution of genomes. Students will choose topics of interest to present and lead discussion. Organisms discussed will viruses, bacteria, archea and eukaryotes.

### **BIOL5340 – BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

This course is an applied introduction to bioinformatics and computational genomics. The course is geared toward the student with a biology background and limited programming experience. The course provides an entrance to commonly used programming/scripting languages and an introduction to numerous aspects of modern genomic data analyses (e.g. identification of coding and regulatory features in novel sequences, expression analysis, and comparative/phylogenetic analyses).

### **BIOL5341 – PRINCIPLES OF NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

Organization and function of the mammalian nervous system including: sensory functions, motor activity, regulation of autonomic function, memory and association. Prerequisites: three hours of advanced physiology courses or consent of the instructor.

### **BIOL5343 – REPTILE BIOLOGY**

**2** Lecture Hours · **3** Lab Hours

Diversity, systematics, distribution and behavior of major groups of reptiles. Laboratory includes museum techniques, identification and anatomical study. Prerequisite: consent of the instructor.

### **BIOL5344 – AMPHIBIAN BIOLOGY**

**2** Lecture Hours · **3** Lab Hours

Diversity, systematics and behavior of major groups of amphibians. Laboratory includes museum techniques, identification and anatomical study. Prerequisite: consent of the instructor.

### **BIOL5345 – ORNITHOLOGY**

**2** Lecture Hours · **3** Lab Hours

Anatomy, physiology, identification, population dynamics and ethology of birds. Laboratory includes field identification, preparation of specimens, and field study techniques. A weekend field trip is required. Prerequisite: consent of the instructor.

### **BIOL5346 – MICROBIAL PHYSIOLOGY**

**3** Lecture Hours · **0** Lab Hours

This course considers the anatomy and physiology of the bacterial cell in detail. Lecture topics consider the molecular architecture of cell walls, membranes and organelles, synthesis of wall material and membranes, insertion of proteins into membranes and regulation of biosynthetic systems at the whole cell level.

### **BIOL5350 – CONSERVATION BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Theory and practice of conservation biology, with emphasis on applications of modern quantitative and molecular genetic techniques to preservation of organisms and habitats. Includes: identification and prioritization of units for protection; conservation genetics; preserve design; public policy; and current case studies. Prerequisites: BIOL 3315 or equivalent or consent of the instructor.

### **BIOL5351 – ENVIRONMENTAL MICROBIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Principles, methodology, and practical applications of environmental microbiology. Topics include: habitat and community approaches to environmental microbiology; measures of microbial populations and activities; interactions among microbial communities; role of microorganisms in the origin of mineral resources and pollution and energy flow through microbial communities. Prerequisite: BIOL 3444 or equivalent or consent of the instructor.

### **BIOL5354 – LIMNOLOGY**

**3** Lecture Hours · **0** Lab Hours

The study of biotic and abiotic components of inland waters. Prerequisite: consent of the instructor.

### **BIOL5357 – MARINE BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Principles of oceanography and ocean circulation, adaptations of marine organisms to their environment, ecological principles of marine biology and human impacts on the sea.

### **BIOL5361 – ADVANCED BIOMETRY**

**3** Lecture Hours · **0** Lab Hours

Topics include introduction to matrix algebra, regression, correlation, residual analysis, and multivariate statistics. Several computerized statistical packages are introduced. Prerequisite: BIOL 5314 or consent of the instructor.

### **BIOL5362 – EXPERIMENTAL DESIGN**

**3** Lecture Hours · **0** Lab Hours

Various analysis of variance models will be explored including hierarchic models, multiway factorial models, Latin square designs, split plots designs, and incomplete block designs. Nonparametric methodologies and analysis of covariance techniques will also be presented. Prerequisite: BIOL 5314 or consent of the instructor.

### **BIOL5364 – POPULATION GENETICS**

**3** Lecture Hours · **0** Lab Hours

The genetics of evolution with emphasis on measuring, predicting, and modeling genetic change in populations. Prerequisite: consent of the instructor.

### **BIOL5367 – THEORETICAL SYSTEMATICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the study of organismal diversity and evolutionary relationships. Emphasizes quantitative methods for phylogeny reconstruction, and interpretation and application of molecular data. Prerequisite: BIOL 3315 and BIOL 3339 or equivalents, or consent of the instructor.

### **BIOL5391 – INDIVIDUAL PROBLEMS IN BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Individual research projects supervised by a faculty member. Prerequisite: consent of the instructor.

### **BIOL5393 – RESEARCH IN BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Conference course in which the student undertakes intensive investigation of topics under the supervision of a staff member. Prerequisite: consent of the instructor. Graded P/F/R.

### **BIOL5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Prerequisite: consent of faculty.

### **BIOL5420 – GENETICS METHODS LAB**

**0** Lecture Hours · **4** Lab Hours

Computational and experimental approach to genomics research. The course theme will be transposable elements.

### **BIOL5421 – METHODS IN MOLECULAR MICROBIOLOGY**

**1** Lecture Hour · **3** Lab Hours

This course will provide an overview of different techniques used during manipulation of microorganisms. It will allow students to gain a historical perspective of techniques used in microbiology (Winogradsky column, Koch solid agar plating) as well as learn state of the art molecular characterization of microorganisms and their genetic manipulation. This course introduces current biochemical, physiological and molecular biology methods to assess community diversity and microbial activity in a variety of ecosystems. Other topics discussed include bacterial growth and survival, population biology, and microbial interactions.

### **BIOL5440 – LABORATORY METHODS IN BACTERIAL PATHOGENESIS**

**1** Lecture Hour · **3** Lab Hours

This course is intended to expose students to research techniques for studying bacterial pathogens. Students will use molecular and classical techniques to isolate, identify and characterize bacteria and their response to stimuli. Techniques will range from PCR, Gene Sequencing, SDS-PAGE and Immunofluorescence Microscopy. Prerequisites BIOL 3312, 3444, 4317.

### **BIOL5493 – RESEARCH**

**4** Lecture Hours · **0** Lab Hours

### **BIOL5593 – RESEARCH**

**5** Lecture Hours · **0** Lab Hours

### **BIOL5693 – RESEARCH IN BIOLOGY**

**6** Lecture Hours · **0** Lab Hours

Conference course in which the student undertakes intensive investigation of topics under the supervision of a staff member. Prerequisite: consent of the instructor. Graded P/F/R.

### **BIOL5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: consent of faculty.

### **BIOL5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: consent of faculty.

### **BIOL6191 – ADVANCED RESEARCH**

1 Lecture Hour · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6291 – ADVANCED RESEARCH**

2 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6391 – ADVANCED RESEARCH**

3 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

6399 and 6699 graded R/F only; 6999 graded P/F/R. Prerequisite: admission to candidacy for the degree Doctor of Philosophy in Quantitative Biology.

### **BIOL6491 – ADVANCED RESEARCH**

4 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6591 – ADVANCED RESEARCH**

5 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6691 – ADVANCED RESEARCH**

6 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

6399 and 6699 graded R/F only; 6999 graded P/F/R. Prerequisite: admission to candidacy for the degree Doctor of Philosophy in Quantitative Biology.

### **BIOL6999 – DISSERTATION**

9 Lecture Hours · 0 Lab Hours

6399 and 6699 graded R/F only; 6999 graded P/F/R. Prerequisite: admission to candidacy for the degree Doctor of Philosophy in Quantitative Biology.

### **BIOL7399 – DOCTORAL DEGREE COMPLETION**

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office

of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

Home

Degree Requirements

Fields of Study

School of Architecture

College of Business

College of Education and  
Health Professions

College of Engineering

College of Liberal Arts

College of Nursing

College of Science

Biology

Chemistry &  
Biochemistry

Earth and Environmental  
Sciences

Interdisciplinary Science

Mathematics

Physics

Psychology

School of Social Work

School of Urban and Public  
Affairs

Admissions Requirements &  
Procedures

General Information &  
Regulations

Graduate Calendar

Graduate Faculty

Table of Contents

Index

## Chemistry & Biochemistry

College of Science

### Chair Rasika Dias

Web [www.uta.edu/chemistry/](http://www.uta.edu/chemistry/)

Email [chemgrad@uta.edu](mailto:chemgrad@uta.edu)

Phone 817.272.3171

Fax 817.272.3808

[219 Science Hall](#)

### Degrees / Certificates

#### Master's Degrees

Chemistry, M.S.

Chemistry, M.S. Thesis Substitute

#### Doctoral Degrees

Chemistry, B.S. to Ph.D.

Chemistry, Ph.D.

### Graduate Faculty

[Morteza Khaledi](#)

[Robin Macaluso](#)

#### Professor

[Daniel Armstrong](#)

[Purnendu Dasgupta](#)

[Rasika Dias](#)

[Ronald Eisenbaumer](#)

[Carl Lovely](#)

[Frederick Macdonnell](#)

[Krishnan Rajeshwar](#)

[Richard Timmons](#)

#### Associate Professor

[Jongyun Heo](#)

[Peter Kroll](#)

[Subhrangsu Mandal](#)

[Kevin Schug](#)

#### Assistant Professor

[Alejandro Bugarin](#)

[Saiful Chowdhury](#)

[Frank Foss](#)

[Junha Jeon](#)

[Kayunta Johnson-Winters](#)

[Roshan Perera](#)

[Bradley Pierce](#)

**Professor Emeritus**  
**Martin Pomerantz**  
**Zoltan Schelly**

---

## Graduate Advisors

**Peter Kroll**  
*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, Ph.D.*

**Robin Macaluso**  
*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, M.S. Thesis Substitute*  
*Chemistry, Non-Degree Seeking*  
*Chemistry, Ph.D.*

---

## Department Information

### Courses

# Department Information

### Available Degree Programs

#### Admission Criteria

- **Unconditional Admission**
- **Provisional Admission**
- **Probationary Admission**
- **Denial of Admission**
- **Eligibility for Scholarships/Fellowships**

#### Objective: Master of Science

#### Master's Degree Requirements

- **Master's Degree with Thesis**
- **Master's Degree with Thesis Substitute**
- **Master's Degree Non-Thesis**

#### Objective: Ph.D. in Chemistry

#### Objective: Ph.D. in Mathematical Sciences/Chemistry Option

#### Ph.D. Degree Requirements

### Available Degree Programs

- Master's Degree with Thesis
- Master's Degree with Thesis Substitute
- Master's Degree Non-Thesis
- Ph.D. in Chemistry

- Ph.D. in Mathematical Sciences/Chemistry Option

## Admission Criteria

In evaluating candidates for admission to its graduate degree programs, the Department of Chemistry and Biochemistry emphasizes the preparedness of the student as evidenced by quality and quantity of coursework and the student's previous research experience. Recommendations from our own faculty, based on firsthand knowledge of the applicant or a faculty member at the applicant's institution, are also very important.

### Unconditional Admission

Unconditional admission may be granted under any one of the following options. The minimum undergraduate GPA requirement for all options is 3.0, as calculated by the Graduate School.

#### Option 1

A satisfactory completion of a Bachelor's degree or equivalent, official transcripts, and GRE scores, and three letters of recommendation.

#### Option 2

A satisfactory completion of a Bachelor's degree or equivalent, official transcripts, and a letter of recommendation from a faculty member at the applicant's undergraduate institution, *plus a recommendation from a UT Arlington Chemistry and Biochemistry faculty member.*

#### Option 3

A satisfactory completion of a bachelor's degree or equivalent, official transcripts, and a letter of recommendation from a faculty member at the undergraduate institution, *plus a recommendation from a UT Arlington Chemistry and Biochemistry faculty member based on a face-to-face interview.*

### Language Requirements

An applicant whose native language is not English must submit a TOEFL score of at least 550 or a score of at least 213 on the computer-based test. A TSE-A score of 45 or higher can be substituted for the TOEFL. Those who have completed their undergraduate education in English may be *eligible for a TOEFL waiver* based on the recommendation letters.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### Probationary Admission

In rare cases, probationary admission may be granted as the result of a substandard performance on one or more of the admission criteria. In this case, the Graduate Advisor will set additional conditions for admission including, but not limited to, additional undergraduate coursework and/or achieving a B or better in the first 9 hours of graduate coursework.

### Denial of Admission

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

## Eligibility for Scholarships/Fellowships

Students that have no provisional admission conditions to meet will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships. (Students with graduate teaching or research assistantships, however, must be enrolled in a minimum of 9 hours of coursework in both long semesters and 6 hours of coursework in the summer sessions.)

## Objective: Master of Science

The objectives of the Chemistry and Biochemistry Department's program leading to the Master of Science degree include (a) developing the individual's ability to do independent research, (b) preparing students for more advanced study in chemistry and (c) providing advanced training to professional chemists and those employed in technical and business areas in which chemistry at this level is necessary for efficient performance. Research areas include analytical chemistry, biochemistry, bioinorganic chemistry, colloid and surface chemistry, electrochemistry, inorganic chemistry, medicinal chemistry, organic chemistry, physical chemistry, polymer chemistry, and theoretical chemistry.

## Master's Degree Requirements

A candidate for graduate study must satisfy the general admission requirements of the program.

### Master's Degree with Thesis

This degree requires a minimum of 24 credit hours in course work plus a 6 credit hour thesis class. A minimum of 18 credit hours course work in chemistry, and up to 6 credit hours electives are required. The 6 credit hour thesis class (CHEM 5698) must be taken in the final semester. Courses in chemistry will be taken from at least four (4) of the chemistry disciplines (Analytical, Biochemistry, Inorganic, Organic, Physical); suggested classes are CHEM 5301 or 5302; 5309; 5304 or 5305 or 5307 or 5311; 5315; 5318 or 5321. Electives may be senior or graduate division courses in a science or engineering subject selected by the candidate with the approval of the graduate advisor.

### Master's Degree with Thesis Substitute

This degree requires a minimum of 33 credit hours, of which at least 27 must be in coursework and 3 in a suitable project. Courses in chemistry will be taken from at least four (4) of the chemistry disciplines (Analytical, Biochemistry, Inorganic, Organic, Physical); suggested classes are CHEM 5301 or 5302; 5309; 5304 or 5305 or 5307 or 5311; 5315; 5318 or 5321. Electives may be senior or graduate division courses in a science or engineering subject selected by the candidate with the approval of the graduate advisor. Minimal registration of a project course (CHEM 5391 or 5691 or CHEM 5392 or 5692) is also required.

Admission to the program requires approval of the Graduate Studies Committee. At the time the degree is awarded the candidate is expected to have completed at least five years of suitable professional experience in an industrial, government, or other chemistry laboratory. All potential applicants must contact the Graduate Advisor prior to registration.

### Master's Degree Non-Thesis

This option requires a minimum of 36 hours of coursework of which at least 24 hours must be in chemistry. Courses in chemistry will be taken from at least four (4) of the chemistry disciplines

(Analytical, Biochemistry, Inorganic, Organic, Physical); suggested classes are CHEM 5301 or 5302; 5309; 5304 or 5305 or 5307 or 5311; 5315; 5318 or 5321. Electives may be senior or graduate division courses in a science or engineering subject. All courses must be approved by the graduate advisor.

### Objective: Ph.D. in Chemistry

The program leading to the Doctor of Philosophy degree in Chemistry is designed primarily to prepare doctoral-level chemists for industrial research careers. The student must (1) demonstrate the ability to carry out independent research; and (2) acquire the practical knowledge of the type of research conducted in industry and of the constraints (both practical and philosophical) under which such research is conducted. The areas of research include analytical chemistry, biochemistry, bioinorganic chemistry, colloid and surface chemistry, electrochemistry, inorganic chemistry, medicinal chemistry, organic chemistry, organometallic chemistry, physical chemistry, polymer chemistry, and theoretical chemistry.

### Objective: Ph.D. in Mathematical Sciences/Chemistry Option

The program leading to the Doctor of Philosophy degree in mathematical sciences/chemistry option is designed primarily to prepare chemists for research and teaching careers which involve the theoretical and mathematical aspects of chemistry. For further details, see Interdepartmental and Intercampus Programs.

### Ph.D. Degree Requirements

To be admitted to the Ph.D. program, an applicant must satisfy the general admission requirements of the program and his or her academic record must show preparation for advanced work in chemistry.

Each candidate must complete the following program requirements:

1. Courses for students emphasizing analytical chemistry (**complete any 3 of the following 4 courses**):

CHEM 5304 Analytical Mass Spectrometry and Spectroscopy  
CHEM 5305 Separation Science  
CHEM 5307 Analytical Electrochemistry  
CHEM 5311 Analytical Chemistry - Concepts and Implementation

(CHEM 5304 and 5311 are considered as Analytical Chemistry Core Courses)

*Plus any two (2) courses* from two divisions outside of analytical chemistry (biochemistry, inorganic, organic, or physical). Chem 5308 cannot be used to fulfill this requirement. Students who do not have a good instrumentation background should consider taking CHEM 5461 Instrumental Analysis.

*Plus: One of the courses listed in item 7.*

2. Courses for students emphasizing biochemistry:

CHEM 5321 Metabolism and Regulation  
CHEM 5325 Enzymology  
CHEM 5327 Biochemical Genetics

(CHEM 5321, 5325, 5327 are considered as Biochemistry Core Courses)

Students emphasizing biochemistry who have not had one full year of General Biochemistry must also take the following courses BEFORE taking CHEM 5321, 5325, and 5327:

CHEM 5318 Principles of Biochemistry  
or  
CHEM 5319 General Biochemistry I  
CHEM 5320 General Biochemistry II

*Plus two from:*

CHEM 5203/5180 Quantum Chemistry  
CHEM 5309 Organic Chemistry I  
CHEM 5315 Inorganic Chemistry  
CHEM 5308 Determination of Mol. Structure by Phys. Methods  
CHEM 5304 or 5311 (one of the Analytical Core Courses)

*Plus: One of the courses listed in item 7.*

3. Courses for students emphasizing inorganic chemistry:

CHEM 5315 Inorganic Chemistry  
CHEM 5308 Determination of Mol. Structure by Phys. Methods

(CHEM 5315 and 5308 are considered as Inorganic Chemistry Core Courses)

*Plus two from:*

CHEM 5203/5180 Quantum Chemistry  
CHEM 5309 Organic Chemistry I  
CHEM 5304 or 5311 (one of the Analytical Core Courses)  
CHEM 5318 Principles of Biochemistry

*Plus: One of the courses listed in item 7.*

4. Courses for students emphasizing organic chemistry:

CHEM 5308 Determination of Mol. Structure by Phys Methods  
CHEM 5309 Organic Chemistry I  
CHEM 5310 Organic Chemistry II  
CHEM 5312 Advanced Organic Synthesis

(CHEM 5308, 5309, 5310, and 5312 are considered as Organic Chemistry Core Courses)

*Plus two from:*

CHEM 5203/5180 Quantum Chemistry  
CHEM 5304 or 5311 (one of the Analytical Core Courses)  
CHEM 5315 Inorganic Chemistry  
CHEM 5318 Principles of Biochemistry

*Plus: one of the courses listed in item 7.*

5. Courses for students emphasizing physical chemistry:

CHEM 5301 Physical Chemistry I  
CHEM 5302 Physical Chemistry II  
CHEM 5300 Selected Topics in Advanced Chemistry

(CHEM 5301 and 5302 are considered as Physical Chemistry Core Courses)

*Plus two from:*

CHEM 5309 Organic Chemistry I  
CHEM 5304 or 5311 (one of the Analytical Core Courses)  
CHEM 5315 Inorganic Chemistry  
CHEM 5318 Principles of Biochemistry

*Plus: One of the courses listed in item 7.*

6. Courses for students emphasizing polymer chemistry:

All required courses for any of the other emphasis areas 1-5

*Plus:*

CHEM 5350 Advanced Polymer Chemistry

7. CHEM 6104, 6304 or 6904. Chemistry Internship. Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience.

8. Additional research and elective courses chosen according to the student's dissertation topic and area of specialization under the guidance of the supervising committee.

A course grade may be used to satisfy degree requirements for no more than seven years after the course has been completed.

After admission to the doctoral program the student must successfully complete the appropriate examination(s) required by the faculty of the student's discipline.

A supplementary set of guidelines, published by the Department of Chemistry and Biochemistry, should be consulted.

## CHEM Courses

### CHEM5101 – SEMINAR IN CHEMISTRY

1 Lecture Hour · 0 Lab Hours

Two semesters of registration are required for all graduate students pursuing a thesis degree (PhD or MSTH). Students will present a talk, prepare a poster, and engage in scientific writing and communication. Includes learning how to prepare, present, and defend an oral presentation. May not be counted for credit toward the degree requirements.

### CHEM5180 – QUANTUM CHEMISTRY LABORATORY

0 Lecture Hours · 4 Lab Hours

Molecular modeling. Application of various computational techniques to chemical problems, including determination of molecular geometry, conformational analysis, and molecular energetics. Prerequisite: concurrent enrollment in CHEM 5203.

### CHEM5191 – READINGS IN CHEMISTRY

1 Lecture Hour · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.



### **CHEM5192 – RESEARCH IN CHEMISTRY**

**1** Lecture Hour · **0** Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5203 – COMPUTATIONAL CHEMISTRY**

**2** Lecture Hours · **0** Lab Hours

Molecular quantum mechanics. Fundamental principles of quantum mechanics, with a special emphasis on molecular electronic structure theory. Topics covered include molecular mechanics, semi-empirical and ab initio molecular orbital theory, density functional theory, calculation of thermodynamic properties and molecular dynamics. Prerequisite: CHEM 3322 or equivalent.

### **CHEM5291 – READINGS IN CHEMISTRY**

**2** Lecture Hours · **0** Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5292 – RESEARCH IN CHEMISTRY**

**2** Lecture Hours · **0** Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5300 – SELECTED TOPICS IN ADVANCED CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

The area may vary (typically analytical, applied, biological, colloid, environmental, inorganic, organic, physical, polymer, materials, theoretical, etc.) and will be announced in advance. More than one area may be covered simultaneously, in parallel courses offered under different section numbers. May be repeated for credit when area or topics vary. Prerequisite: permission of instructor.

### **CHEM5301 – INTRODUCTION TO GRADUATE PHYSICAL CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Classical thermodynamics and statistical thermodynamics. Equilibrium and kinetic processes. Reaction dynamics. Principles of quantum chemistry and its application to spectroscopy. Introduction to bonding in molecules and solids.

### **CHEM5302 – ADVANCED GRADUATE PHYSICAL CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Statistical thermodynamics and its application to kinetics and spectroscopy. Quantum theory, ab initio methods and density functional theory. Advanced spectroscopic methods to investigate bonding in molecules and solids. Prerequisite: CHEM 5301 or permission of the instructor.

### **CHEM5304 – ANALYTICAL MASS SPECTROMETRY AND SPECTROSCOPY**

**3** Lecture Hours · **0** Lab Hours

This course covers modern aspects of atomic and molecular mass spectrometry, as well as spectrochemical analysis. Upon completion of this course, the student will be able to: describe the basic setup and operation of mass spectrometric and spectroscopic instrumentation; interpret spectra from various instruments as a means for qualitative and quantitative analysis; apply basic knowledge of mass spectrometry and spectroscopy for practical problem solving; relate the use of mass spectrometry and spectroscopy to his or her own research interests; and compile, present, and explain modern techniques for analytical research. Written and oral presentations, as well as traditional classroom examinations, homework, and quizzes will be used to assess student performance. Prerequisite includes CHEM 4461 or equivalent; or permission of instructor.



## **CHEM5305 – SEPARATION SCIENCE**

**3** Lecture Hours · **0** Lab Hours

A comprehensive examination of most areas involving the separation of molecules and ions. Theoretical, practical and historical aspects of: distillation, sublimation, liquid-liquid extraction, solid phase extraction, chromatography, electrophoresis, field flow fractionation, membrane/barrier processes, and crystallization will be considered. Students taking this course must have a good basic background in organic chemistry and physical chemistry.

## **CHEM5306 – ANALYTICAL SPECTROSCOPY**

**3** Lecture Hours · **0** Lab Hours

This course covers many of the methods of spectrochemical analysis used in the analytical laboratory. At the end of this course, students should be able to: explain the fundamental theory of many spectroscopy methods, including atomic spectroscopy, molecular spectroscopy, UV/Vis spectroscopy, molecular luminescence, and infrared spectrometry, among others; describe basic instrumental components; apply basic statistics (e.g., measurement errors, and calibration methods) for data analysis; and understand the fundamental use and applications of spectroscopy methods for basic research and laboratory measurements. Student performance will be evaluated based on homework assignments, exams, quizzes, and presentations. Prerequisite includes CHEM 4461 or equivalent, or permission of instructor.

## **CHEM5307 – ANALYTICAL ELECTROCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

This course covers modern aspects of electroanalytical chemistry. Upon completion of this course, the student will be able to: understand the concepts of redox potentials and their role in electron transfer, the thermodynamic aspects of electrochemical cells, mass transport in electrochemical systems, and the principles underlying various electroanalytical techniques such as potentiometry, amperometry, coulometry and voltammetry. The instrumental aspects of these techniques will also be addressed, including specialized approaches such as spectroelectrochemistry. The student will be able to relate the use of these analytical techniques to his or her own research needs and interests. Written and oral examinations, as well as traditional classroom examinations, will be used to assess student performance. Prerequisite includes CHEM 4461 or equivalent; or permission of instructor.

## **CHEM5308 – DETERMINATION OF MOLECULAR STRUCTURE BY PHYSICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

The use of modern instrumental techniques to determine structure: infrared, ultraviolet, and magnetic resonance spectroscopy, mass spectrometry, optical rotatory dispersion. Emphasis on interpretation of spectra. Prerequisite: CHEM 2322 or equivalent.

## **CHEM5309 – ORGANIC CHEMISTRY I**

**3** Lecture Hours · **0** Lab Hours

Bonding, structure, stereochemistry, substituent effects, isotope effects, solvent effects, kinetics, and linear free-energy relationships in determining reaction mechanisms. Acids and bases, orbital symmetry, pericyclic reactions, photochemistry, and nucleophilic substitution reactions. Prerequisites: CHEM 2322 and 3322 or equivalent.

## **CHEM5310 – ORGANIC CHEMISTRY II**

**3** Lecture Hours · **0** Lab Hours

A survey of organic reaction mechanisms including addition and elimination reactions, nucleophilic carbon species, carbonyl reactions, electrophilic substitution reactions, rearrangement reactions, electron deficient species, and free radical reactions. Prerequisite: CHEM 5309 or permission.

## **CHEM5311 – ANALYTICAL CHEMISTRY - CONCEPTS AND IMPLEMENTATION**

**3** Lecture Hours · **0** Lab Hours

This course familiarizes students with basic electronic design in analytical instrumentation. Familiarization with active and passive components, operational amplifiers, timers, logic gates, and designing analytical

instrumentation based on such components, especially in Wet Chemistry. The course covers ionic equilibria and acid-base equilibria and solving complex problems by iterative numerical methods and nonlinear curve fitting using programming in BASIC and MS Excel Solver™. The course covers present day applications of wet chemical analysis, specific methods and instrumentation, practical aspects of automated liquid phase analytical methods including component availability and cost. A design problem, chosen by lottery, will be given to each student early in the semester. The newly acquired knowledge of chemistry and electronics will be used to design a new instrument and present it. Prerequisite: CHEM 4461 or equivalent undergraduate instrumental analysis course.

### **CHEM5312 – ADVANCED ORGANIC SYNTHESIS**

**3** Lecture Hours · **0** Lab Hours

Synthetically important reactions, strategy in organic synthesis using retrosynthetic analysis and mechanistic understanding of reactions, synthons, asymmetric synthesis. Prerequisite: CHEM 5310 or permission of instructor.

### **CHEM5315 – INORGANIC CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Structures, bonding, and properties of main group and transition element compounds including: symmetry, coordination chemistry, reaction mechanisms, organometallic chemistry, and modern characterization techniques. Prerequisite: CHEM 4318 or permission of instructor.

### **CHEM5318 – PRINCIPLES OF BIOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Protein and nucleic acids structure, enzyme kinetics, and metabolism related to the human body. The course is intended for students who require biochemistry to support research efforts, or need to satisfy a deficiency before proceeding in the biochemistry graduate program. If CHEM 5318 is used for credit toward a degree, then any of CHEM 5319, 5320, or CHEM 4311, 4312 cannot also be used for credit. Prerequisite: CHEM 2322 or equivalent. A knowledge of physical chemistry is helpful.

### **CHEM5319 – GENERAL BIOCHEMISTRY I**

**3** Lecture Hours · **0** Lab Hours

Amino acids, carbohydrates, nucleic acids, enzymes. Obtaining of energy and cellular material from glucose including glycolysis, the TCA cycle, electron transport and oxidative phosphorylation and the pentose phosphate pathway. Either CHEM 5318 or 5319, but not both, may be counted for credit toward degree requirements. Prerequisite: CHEM 2322 or equivalent. A knowledge of physical chemistry is helpful.

### **CHEM5320 – GENERAL BIOCHEMISTRY II**

**3** Lecture Hours · **0** Lab Hours

Modes of breakdown and synthesis of fats, oxidative degradation of amino acids and proteins and biosynthesis of carbohydrate, nucleic acids, and protein. Chemical significance of the genetic code. Either CHEM 5318 or 5320, but not both, may be counted for credit toward degree requirements. Prerequisite: one semester of approved biochemistry (CHEM 5319 or equivalent).

### **CHEM5321 – METABOLISM AND REGULATION**

**3** Lecture Hours · **0** Lab Hours

Biosynthesis of amino acids, purines, pyrimidines, and complex lipids, including terpenes and steroids, with emphasis on regulation of these pathways. Aspects of more complex metabolic regulation by hormones, second messengers and receptor-mediated endocytosis with emphasis on chemical and structural modifications of proteins involved. Prerequisite: CHEM 5320.

### **CHEM5325 – ENZYMOLOGY**

**3** Lecture Hours · **0** Lab Hours

A study of enzymes including structures, reaction mechanisms, regulation, and kinetics. Prerequisite: CHEM 5320.

### **CHEM5327 – BIOCHEMICAL GENETICS**

**3** Lecture Hours · **0** Lab Hours

Aspects of the biochemistry of gene expression in prokaryotic and eukaryotic organisms, its regulation and control, together with genetic manipulations, and the methodology of recombinant DNA technology. Prerequisite: CHEM 5320.

### **CHEM5328 – ADVANCED BIOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

The course will cover various aspects of advanced studies in Biochemistry, Metabolism, and Cell Signaling. Selected topics may include gene expression regulation in prokaryotes and eukaryotes, epigenetics, cancer biology, lipid metabolism, cofactors, enzyme kinetics, cell signaling, redox signaling, nitric oxide signaling, metallo-enzyme mechanism and function, unnatural amino acids, protein engineering, and proteomics. Prerequisite: CHEM 5318 (Principles of Biochemistry or equivalent) or Biochemistry I and II (CHEM5319 and 5320)

### **CHEM5333 – THERMODYNAMICS OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Applications of thermodynamics to the study of materials, thermodynamic properties of liquid and solid solutions and their relationship to surface and crystalline defects. Also offered as MSE 5320. Prerequisite: permission of instructor.

### **CHEM5350 – ADVANCED POLYMER CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Polymer synthesis and reactions including condensation, free-radical, ionic, and coordination polymerizations; principles of polymerization including thermodynamics and kinetic considerations; physical characterizations including determinations of absolute molecular weights, relative molecular weights, morphology, glass transitions, and polymer crystallinity; relationships between macromolecular structure, properties, and uses of polymeric materials. Also offered as MSE 5346. Prerequisite: CHEM 2321 and 2322 or permission of instructor.

### **CHEM5360 – X-RAY DIFFRACTION, SCATTERING AND ABSORPTION**

**3** Lecture Hours · **0** Lab Hours

The class will focus on modern applications of X-ray diffraction and absorption techniques in crystal and molecular structure determination. A practical component will address aspects of state of the art methods, including how to solve structures using data collected on powder and single-crystal diffractometers, X-ray photoelectron spectroscopy (XPS), etc.

### **CHEM5391 – READINGS IN CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5392 – RESEARCH IN CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Prerequisite: permission of instructor.

### **CHEM5461 – ANALYTICAL INSTRUMENTATION**

**2** Lecture Hours · **8** Lab Hours

Theory of instrumentation and chemical signal source. Practical experiments utilizing atomic and molecular absorption and emission spectroscopy, chromatographic analysis, and electrochemical techniques. Prerequisite: CHEM 3322 or equivalent.

### **CHEM5491 – READINGS IN CHEMISTRY**

4 Lecture Hours · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5492 – RESEARCH IN CHEMISTRY**

4 Lecture Hours · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5591 – READINGS IN CHEMISTRY**

5 Lecture Hours · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5592 – RESEARCH IN CHEMISTRY**

5 Lecture Hours · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5691 – READINGS IN CHEMISTRY**

6 Lecture Hours · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5692 – RESEARCH IN CHEMISTRY**

6 Lecture Hours · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5698 – THESIS**

6 Lecture Hours · 0 Lab Hours

Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5998 – THESIS**

9 Lecture Hours · 0 Lab Hours

Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM6100 – TOPICS IN GRADUATE RESEARCH**

1 Lecture Hour · 0 Lab Hours

Lectures by departmental and university faculty on current chemical research at U.T. Arlington. All graduate students are required to take this course once. May not be counted toward degree requirements. Graded P/F only.

### **CHEM6102 – ISSUES IN MODERN CHEMICAL RESEARCH**

1 Lecture Hour · 0 Lab Hours

Topics to be discussed include the use of the library, maintenance of a research notebook, ethics in research, aspects of technical writing and presentations, and how research is funded. May not be counted toward degree requirements. Graded P/F only.

### **CHEM6104 – CHEMISTRY INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience. Graded P/F/R only. Prerequisite: permission of Graduate Advisor.

### **CHEM6202 – PRINCIPLES OF INDUSTRIAL CHEMISTRY**

2 Lecture Hours · 0 Lab Hours

Survey of industrial inorganic and organic chemical processes. Prerequisite: permission of instructor.

### **CHEM6203 – REGULATORY ASPECTS OF THE CHEMICAL INDUSTRY**

2 Lecture Hours · 0 Lab Hours

Survey of chemical toxicology, regulatory aspects involved in the chemical industry, industrial safety, patents and patent law.

### **CHEM6304 – CHEMISTRY INTERNSHIP**

3 Lecture Hours · 0 Lab Hours

Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience. Graded P/F/R only. Prerequisite: permission of Graduate Advisor.

### **CHEM6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

Graded R/F only. Prerequisite: admission to candidacy for the degree of Ph.D. in Applied Chemistry.

### **CHEM6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

Graded R/F/P/W. Prerequisite: admission to candidacy for the degree of Ph.D. in Applied Chemistry.

### **CHEM6904 – CHEMISTRY INTERNSHIP**

9 Lecture Hours · 0 Lab Hours

Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience. Graded P/F/R only. Prerequisite: permission of Graduate Advisor.

### **CHEM6999 – DISSERTATION**

9 Lecture Hours · 0 Lab Hours

Graded P/F/R only. Prerequisite: admission to candidacy for the degree of Ph.D. in Applied Chemistry.

### **CHEM7399 – DOCTORAL DEGREE COMPLETION**

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial

aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
    - Biology
    - Chemistry & Biochemistry
    - Earth and Environmental Sciences
    - Interdisciplinary Science
    - Mathematics
    - Physics
    - Psychology
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Earth and Environmental Sciences

College of Science

### Chair **Asish Basu**

Web [www.uta.edu/ees/](http://www.uta.edu/ees/)  
Phone 817.272.2405  
Fax 817.272.3822

---

### Degrees / Certificates

#### Master's Degrees

Earth and Environmental Science / Geology, M.S.

#### Doctoral Degrees

Earth and Environmental Science, B.S. to Ph.D.

Earth and Environmental Science, Ph.D.

#### Certificates

Environmental Science Certificate

G.I.S. and Spatial Information Systems Certificate

Hazardous Materials and Waste Management Certificate

Petroleum Geoscience Certificate

---

### Graduate Faculty

#### Professor

[Asish Basu](#)

[Glen Mattioli](#)

[Merlynd Nestell](#)

[John Wickham](#)

#### Associate Professor

[Qinhong Hu](#)

[Andrew Hunt](#)

#### Assistant Professor

[Majie Fan](#)

[Elizabeth Griffith](#)

[William Griffith](#)

[Arne Winguth](#)

#### Adjunct Professor

[Galina Nestell](#)

#### Associate Adjunct Professor

[Larry Standlee](#)

#### Assistant Adjunct Professor

[Harold Rowe](#)

---

## Graduate Advisors

### Andrew Hunt

*Earth and Environmental Science / Geology, M.S.  
Earth and Environmental Science, Ph.D.*

### John Wickham

*Earth and Environmental Science / Geology, M.S.*

---

## Department Information

### Courses

# Department Information

### Program Objectives

#### Admission

- [Environmental and Earth Sciences Master's Program Admissions](#)
- [Environmental and Earth Sciences Doctoral Program Admissions](#)

#### Degree Requirements

- [Environmental and Earth Sciences Master's Degree](#)
- [Dual Degree Program](#)
- [Environmental and Earth Sciences Doctoral Degree](#)

## Program Objectives

**The MS in Environmental and Earth Sciences** has four options: an Environmental Science Option; a Geoscience Option; a Professional Environmental Science Option; and a Petroleum Geoscience Option.

*The Environmental Science Option* provides graduate students with an integrated, multidisciplinary education, requiring a breadth of understanding and mastery of a spectrum of scientific and engineering principles. The thesis option, designed for those interested in an in-depth experience in some particular topic, and a non-thesis option are available.

*The Geoscience Option* is a two year program with specializations in stratigraphy, petrology, paleontology, sedimentology, structural geology, tectonics, plate tectonics, computer modeling, geochemistry or paleoclimatology. Students in this program are prepared for additional graduate work at the PhD level, or for positions in industry and government. Thesis or non thesis options are available.

*The Environmental Science Professional Option* is a Professional Master's Degree for those interested in a career in Environmental Science. Instead of a thesis, students are participate in a mentoring program, take a course in project economics, work as an intern or in a part time job in the Environmental Science Profession, and participate in course experiences involving business ethics, teamwork, a small research project, and communication. This is a non thesis program.

*The Petroleum Geoscience Professional Option* is a Professional Masters Degree for those interested in a career in Petroleum Geoscience. In addition to core geology courses, students



are required to participate in a mentoring program with industry professionals, work as an intern or in a part time job in petroleum geoscience, take a course in project economics, and participate in course activities that emphasize business ethics, teamwork and communications. A thesis research project is required.

**The PhD in Environmental and Earth Sciences.** The program leading to the Doctor of Philosophy degree in Environmental and Earth Sciences is designed primarily to prepare doctoral-level students for research careers in industry, government or academic institutions. Students carry out independent research and acquire practical knowledge of the type of research conducted and the constraints (both practical and philosophical) under which such research is conducted. The areas of research are interdisciplinary using the Earth's environment, interpreted broadly, as the theme. Research normally comes from the disciplines of Geoscience, Biology, Chemistry and Engineering, but contributions from other disciplines are welcome. The program is designed to provide graduate students an integrated, multidisciplinary education, requiring a breadth of understanding and mastery of a spectrum of scientific and engineering principles. Among the goals is to provide students who have earned engineering or science undergraduate degrees a common ground for interdisciplinary communication, an understanding of the environment, and competence in a research area that will enable them to evaluate complex environmental problems.

## Admission

Students applying for MS or PhD degrees should apply to the Graduate School for regular admission to a particular degree program.

### Categories of admission:

**Unconditional** - all the admission criteria are met and there are no conditions placed on continued enrollment in the program.

**Probationary** - Applicants that do not meet the standards for unconditional admission may be considered for probationary admission after careful examination of their application materials. Probationary admission normally requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

**Deferred and Provisional Admission** - A deferred admission may be granted when an application is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

**International students:** An applicant whose native language is not English must demonstrate a sufficient level of skill with the English language to assure success in graduate studies. Applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.

An applicant holding either a bachelor's or a master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, TSE or IELTS score for admission purposes. Any other waivers of the score requirements must be recommended by the applicant's Graduate Advisor and approved by the Dean of Graduate Studies.

**Financial Aid.** Students that are unconditionally admitted into the PhD program can also apply for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 9 hours of coursework in both long semesters to retain their fellowships. In addition, an applicant who is a non-native speaker of English must submit a TOEFL iBT score of at least 23, or a score of at least 7 on the Speaking section of the IELTS, or take and pass the UTA Developmental English course

to be eligible for a Graduate Teaching Assistantship.

**Denial of Admission** - A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

### Environmental and Earth Sciences Master's Program Admissions

For unconditional admission a student must meet the following requirements:

For the Environmental Science Options: A B.S. degree in biology, chemistry, geoscience, mathematics, or engineering with the following courses or their equivalent: 1 semester of introductory physics for science majors; 2 semesters of introductory chemistry for science majors; and 2 semesters of calculus. Students with a Bachelor's Degree in other sciences will also be considered, subject to satisfactory completion of deficiency courses.

For the Geoscience Options: A B.S. degree in an Earth Science discipline with the following courses or their equivalent: Mineralogy, Petrology, Structure, Stratigraphy, Field Geology and Geophysics or Paleontology. In addition, students need a year of Chemistry, Biology, Physics and Calculus.

For all Options:

1. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School.
2. Graduate Record Examination (GRE) scores are considered in admission decisions. Masters students who have succeeded in the Environmental and Earth Sciences Program typically score higher than the 60th Percentile on the verbal and quantitative portion of the GRE.
3. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or an equivalent score on a computer-based test) or a score of 40 on the Test of Spoken English.
4. Favorable letters of recommendation from people familiar with the applicant's academic work.
5. Students may be considered for unconditional admission if further review of their transcripts, recommendation letters, correspondence or direct interactions with Environmental and Earth Sciences faculty, and statement of professional or research interests indicates that they are qualified to enter the Masters Program.

### Environmental and Earth Sciences Doctoral Program Admissions

For unconditional admission a student must meet the following requirements:

1. A Masters Degree or at least 30 hours of graduate coursework in environmental science, biology, chemistry, geology, mathematics or engineering. Students with a Bachelor's degree in biology, chemistry, geology, mathematics, or engineering will be considered for the B.S. to Ph.D. track if they meet the other requirements for admission to doctoral studies. Students with a Bachelor's Degree in other sciences will also be considered, subject to satisfactory completion of courses to make up deficiencies.
2. A minimum graduate coursework GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School.
3. Graduate Record Examination (GRE) scores are considered in admission decisions. Doctoral students who have succeeded in the Environmental and Earth Sciences Program typically score higher than the 60th percentile the verbal and the quantitative portion of the GRE.
4. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or an equivalent score on a computer-based test) or a score of 40 on the Test of Spoken English.
5. Favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

6. A statement must be submitted to the program detailing the applicant's specific research interests and identifying the faculty member who is requested as supervisor of the dissertation research.
7. Students may be considered for unconditional admission if further review of their transcripts, recommendation letters, correspondence or direct interactions with Environmental and Earth Sciences faculty, and statement of research interests indicates that they are qualified to enter the Doctoral Program.

## Degree Requirements

### Environmental and Earth Sciences Master's Degree

There are additional requirements for all Master's programs listed in this catalogue under the Graduate School

#### Environmental Science Option:

Core Courses (15 hours)

- Engineering (6 hours)
  - **CE 5321** Engineering for Environmental Scientists
  - **CE 5319** Physical-Chemical Processes II or **CE 5328** Fundamentals of Air Pollution
- Two of the following courses in science (6 hours):
  - **EVSE 5309** Environmental Sciences-Biological Aspects <sup>[1]</sup>
  - **EVSE 5310** Environmental Sciences -Chemical Aspects <sup>[1]</sup>
  - **EVSE 5311** Environmental Sciences -Geological Aspects <sup>[1]</sup>

<sup>[1]</sup> Students with less than 20 undergraduate hours in biology, chemistry, or geology will need to take a third environmental systems course as a deficiency. Students entering with a BS degree in one of these areas must take their two courses in the other areas.

- One of the following three courses in City and Regional Planning (3 Hours)
  - **CIRP 5342** Environmental Policy
  - **CIRP 5343** Foundations of Environmental Policy
  - **CIRP 5351** Techniques of Environmental Assessment

**Thesis Option:** In addition to the core courses listed above, the minimum requirements for the master's degree with thesis include:

- 9 hours of electives within one of the following departments: Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs
- 6 hours of additional electives
- 2 hours of EVSE seminar
- 6 hours thesis and the successful defense of the thesis before the supervising committee.

**Non-thesis Option:** In addition to the core courses listed above the minimum requirements for the master's degree without thesis include:

- 9 hours of electives within one of the following departments: Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs
- 12 hours of additional electives <sup>[2]</sup>
- 2 hours of EVSE seminar
- Successful completion of the Master's Comprehensive Examination in the final semester.

<sup>[2]</sup> Must include at least 6 hours in department(s) outside that in which the first 9 hours of electives are taken.

### The Geoscience Option:

Engineering (3 hours)

**CE 5321**, or **IE 3312**, or advisor approved.

Outside Science (3 hours)

**EVSE 5309**, or **EVSE 5310**, or advisor approved.

Seminar (2 hours)

**GEOL 5199** or **EVSE 6100**

**Thesis Option:** In addition to the core courses listed above the minimum requirements are:

- Advisor approved electives (18 hours)
- **Geol 5698** Thesis (6 hours)

**Non-Thesis Option:** In addition to the core courses listed above the minimum requirements are:

Advisor approved electives (27 hours)

**Environmental Science Professional Option:** The minimum requirements for the Professional Option include:

- Engineering (6 hours)
- **IE 3312** and **CE 5321**

Two of the following courses in science (6 hours):

- **EVSE 5309** Environmental Sciences-Biological Aspects [\[3\]](#)
- **EVSE 5310** Environmental Sciences -Chemical Aspects [\[3\]](#)
- **EVSE 5311** Environmental Sciences -Geological Aspects [\[3\]](#)

[\[3\]](#) Students with less than 20 undergraduate hours in biology, chemistry, or geology will need to take a third environmental systems course as a deficiency. Students entering with a BS degree in one of these areas must take their two courses in the other areas.

One of the following three courses in City and Regional Planning (3 Hours)

- **CIRP 5342** Environmental Policy
- **CIRP 5343** Foundations of Environmental Policy
- **CIRP 5351** Techniques of Environmental Assessment

Professional Courses (8 hours)

- **EVSE 5120**, Environmental Professional Mentoring and Business Ethics (2 semesters).
- **EVSE 5315**, Professional Experience
- **EVSE 5395**, Master's Project

Other Electives (15 hours)

- 9 hours of electives within one of the following departments: Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs
- 6 hours of additional electives

**The Petroleum Geoscience Professional Option:** The minimum requirements for the Petroleum Geoscience Professional Option include:

- Engineering (3 hours)
- **IE 3312**, or advisor approved.
- Professional Courses (2 hours)
  - **GEOL 5180** or **EVSE 5110**, Environmental Professional Mentoring and

#### Business Ethics.

- **GEOL 5190**, Professional Experience
- Other courses (27 hours):
  - **GEOL 5345** Petroleum Geology
  - **GEOL 5369** Sequence Stratigraphy
  - **GEOL 5371** Basin Modeling
  - **GEOL 5372** Structural Geometry and Tectonics of Petroleum Fields
  - **GEOL 5373** Reservoir Characterization
  - **GEOL 5374** Seismic Interpretation
  - **GEOL 5375** Introduction to Well Log Interpretation and Mapping
  - **GEOL 5698** Thesis

### Dual Degree Program

Dual master's degrees can be arranged with any suitable program. By participating in a dual degree program, students may apply 6-18 total semester credit hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from six to 18, subject to the approval of Graduate Advisors from both programs. Degree plans, thesis or professional report proposals and programs of work must be approved by Graduate Advisors from both programs. The successful candidate will be awarded both degrees rather than one joint degree.

To participate in the dual degree program, students must make separate application to each program and must submit a separate program of work for each degree. Those interested in the dual degree program should consult the appropriate Graduate Advisors for further information on course requirements. See also the statement on Dual Degree Programs in the general information section of this catalog.

Arrangements to offer a dual degree have already been made between Environmental and Earth Sciences and the Program in City and Regional Planning (M.C.R.P. degree), School of Urban and Public Affairs.

### Environmental and Earth Sciences Doctoral Degree

The Doctoral Program provides students with the interdisciplinary knowledge and skills to conduct independent research in Environmental and Earth Sciences. Students conduct dissertation research under the supervision of a faculty member in one of the participating departments (Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs). The supervising professor and a faculty committee assign courses in this primary area of emphasis to support the student's research and professional goals. To provide interdisciplinary training, additional courses are assigned in a secondary area of emphasis.

If they have not already done so in their previous work, all Doctoral students must take two engineering courses; two or three science courses (two if their prior training is in science, three if in engineering or another non-science field); and one course in policy or planning.

Students who enter the Doctoral Program with a Master's degree in a science or engineering field, or with 30 semester hours of graduate coursework, take a Diagnostic Examination In the first year of residence to evaluate this previous work. The student's supervising committee must approve all courses taken to meet degree requirements.

Students who enter the Doctoral Program with a Bachelor's degree take 30 semester hours of graduate coursework that includes Engineering, Science and Public Policy courses. These students are encouraged to take the diagnostic exam in their first year of enrollment. The student's supervising committee must approve all courses taken to meet degree requirements.

Students may choose among any of the five participating units for their primary and secondary

areas of emphasis. Course selection within these areas of emphasis is guided by the student's supervising committee and must result in a cohesive program that supports the dissertation research.

Other requirements include:

1. Successful completion of the Diagnostic Examination at the end of the first year of residence.
2. Successful completion of the Comprehensive Examination, an oral defense of a research proposal to be pursued for the dissertation, and a specialization examination over areas of the student's proposed research.
3. Demonstration of proficiency in one foreign language or a research tool such as advanced computer skills, statistics, or operations research.
4. Successful defense of the dissertation and acceptance of the dissertation by the supervising committee.

## **EVSE Courses**

### **EVSE5100 – SELECTED TOPICS IN ENVIRONMENTAL SCIENCE AND ENGINEERING**

1 Lecture Hour · 0 Lab Hours

May be repeated for credit when topic changes.

### **EVSE5120 – ENVIRONMENTAL PROFESSIONAL MENTORING & BUSINESS ETHICS**

1 Lecture Hour · 0 Lab Hours

Provides credit to students participating in an approved mentoring program with an experience environmental professional. May be repeated once for credit.

### **EVSE5200 – SELECTED TOPICS IN ENVIRONMENTAL & EARTH SCIENCES**

2 Lecture Hours · 0 Lab Hours

May be repeated for credit when topic changes.

### **EVSE5294 – INDIVIDUAL PROBLEMS IN ENVIRONMENTAL & EARTH SCIENCES**

2 Lecture Hours · 0 Lab Hours

Individual research projects supervised by a faculty member.

### **EVSE5300 – SELECTED TOPICS IN ENVIRONMENTAL & EARTH SCIENCE**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topic changes.

### **EVSE5309 – ENVIRONMENTAL SYSTEMS-BIOLOGICAL ASPECTS**

3 Lecture Hours · 0 Lab Hours

An introduction to the biological components of environmental systems. Population dynamics, species interactions, community structure, biodiversity, bioenergetics, nutrient cycling and human impacts are reviewed. Focus will be on natural processes and their engineering applications.

### **EVSE5310 – ENVIRONMENTAL SYSTEMS-CHEMICAL ASPECTS**

3 Lecture Hours · 0 Lab Hours



An introduction to the chemistries of air at different altitudes, of water systems and of soils. Chemical and physico-chemical processes at phase boundaries, modeling for kinetics and mass transport, analytical techniques and disposal and recycling are included as well as their impact on engineering decisions.

### **EVSE5311 – ENVIRONMENTAL SYSTEMS-GEOLOGICAL ASPECTS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the tectonic, volcanic, atmospheric, climatic, hydrologic and geochemical processes and natural hazards of the earth, and their interaction with political, economic and engineering decisions.

### **EVSE5315 – PROFESSIONAL EXPERIENCE**

**3** Lecture Hours · **0** Lab Hours

Provides credit to students participating in an approved internship or part-time work experience.

### **EVSE5320 – TOXICOLOGY**

**3** Lecture Hours · **0** Lab Hours

An introduction to the general principles of toxicology with an emphasis on certain classes of toxic agents, their sources and toxic effects, as well as their environmental fate. Prerequisite: CHEM 2322.

### **EVSE5321 – HEALTH RISK ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

An introduction to health considerations relevant to environmental projects. Prepares students to take the Registered Environmental Health Specialist Examination.

### **EVSE5322 – ENVIRONMENTAL RISK ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

An introduction to the health assessment process, presenting methodologies and guidelines for conducting health assessments.

### **EVSE5323 – ISSUES IN ENVIRONMENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

An introduction to health issues of current concern resulting from environmental exposures. Topics include: environmental asthma, endocrine disruptors, climate change and health, emerging contaminants, nanotechnology and health, airborne particles and pediatric health.

### **EVSE5350 – CONTAMINANT HYDROGEOLOGY**

**3** Lecture Hours · **0** Lab Hours

Sources and types of various organic and inorganic contaminants; the physical, chemical, and biological factors and processes that affect the transport and fate of contaminants in the subsurface; non-aqueous phase liquids and multiphase flow; and various remedial techniques of contaminated sites. Prerequisite: GEOL 4320 or GEOL 5328 (or concurrent enrollment).

### **EVSE5351 – GEOMORPHOLOGY AND QUATERNARY STRATIGRAPHY OF SEDIMENTARY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

This course examines those physical processes that sculpt the surface of the Earth and result in deposition of sediments. Surface systems covered include weathering, mass wasting, rivers, shorelines, eolian processes, and glaciers. The course also examines the stratigraphic techniques used to decode the recent (2 million to present) stratigraphic record of these systems. Course is designed for geologists, biologists, and other fields concerned with interpreting and/or managing modern environments.

### **EVSE5352 – OCEANOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

The many aspects of oceanography with special emphasis on physical oceanography and marine geology.

### **EVSE5394 – INDIVIDUAL PROBLEMS IN ENVIRONMENTAL & EARTH SCIENCES**

**3** Lecture Hours · **0** Lab Hours

Individual research projects supervised by a faculty member. Prerequisite: consent of instructor.

### **EVSE5395 – MASTER'S PROJECT**

**3** Lecture Hours · **0** Lab Hours

May be used as elective for students in non-thesis program. Graded F, P.

### **EVSE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

### **EVSE5405 – METEOROLOGY AND CLIMATOLOGY**

**3** Lecture Hours · **3** Lab Hours

A quantitative approach to the study of the structure, energy, and motions of the atmosphere.

### **EVSE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded F, P, R.

### **EVSE5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Graded F, P, R.

### **EVSE6100 – SEMINAR IN ENVIRONMENTAL & EARTH SCIENCES**

**1** Lecture Hour · **0** Lab Hours

Topics presented by faculty, students, and invited lecturers.

### **EVSE6197 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCES**

**1** Lecture Hour · **0** Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6297 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCES**

**2** Lecture Hours · **0** Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6397 – RESEARCH IN ENVIRONMENTAL AND EARTH SCIENCES**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours



Graded F, R.

### **EVSE6697 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCE**

6 Lecture Hours · 0 Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

Graded F, R, P, W.

### **EVSE6997 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCE**

9 Lecture Hours · 0 Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6999 – DISSERTATION**

9 Lecture Hours · 0 Lab Hours

Graded F, P, R.

### **EVSE7399 – DOCTORAL DEGREE COMPLETION**

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **GEOL Courses**

### **GEOL5180 – PROFESSIONAL ORIENTATION AND BUSINESS ETHICS**

1 Lecture Hour · 0 Lab Hours

A mentoring program using working professionals selected by the Earth and Environmental Sciences Department. Each participant meets at least once a month with a mentor who provides information on practices and skills necessary to succeed in the workplace. Course participants review business ethics statements provided by the mentor's company or other companies and write a critique based on materials from professional business ethics organizations such as the International Business Ethics Institute. Prerequisite or concurrent enrollment GEOL 5345.

### **GEOL5181 – RESEARCH IN GEOLOGY**

1 Lecture Hour · 0 Lab Hours

Independent study in various areas of research including paleontology, stratigraphy, tectonics, structural geology, sedimentology, geochemistry, petrology, geophysics, and volcanology. May be repeated for credit. Graded P/F/R/W.

### **GEOL5190 – GEOSCIENCE INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Work in geoscience for a commercial concern at least 20 hrs/wk for 3 months. Requirements include writing a resume, learning how to interview and function on the job, and a report describing the work. Prerequisite: Geol 5345 or concurrent enrollment.

### **GEOL5199 – TECHNICAL SESSIONS**

1 Lecture Hour · 0 Lab Hours

Forum for presentation of results of graduate students and faculty research. Required each semester of all graduate students.

### **GEOL5265 – TOPICS IN GEOL**

1 Lecture Hour · 2 Lab Hours

### **GEOL5281 – RESEARCH IN GEOLOGY**

2 Lecture Hours · 0 Lab Hours

Independent study in various areas of research including paleontology, stratigraphy, tectonics, structural geology, sedimentology, geochemistry, petrology, geophysics, and volcanology. May be repeated for credit. Graded P/F/R/W.

### **GEOL5301 – ENVIRONMENTAL GEOCHEMISTRY**

3 Lecture Hours · 0 Lab Hours

Fundamentals of low-temperature aqueous geochemistry, and anthropogenic impacts on natural water systems. Topics include equilibrium thermodynamics, kinetics, aqueous complexation, and oxidation/reduction processes that affect metals and organic matter in natural waters.

### **GEOL5302 – GLOBAL TECTONICS**

3 Lecture Hours · 0 Lab Hours

Plate tectonic theory and evidence, review of plate tectonic history since the late Precambrian. Prerequisite: Geol 3442, Geol 3443.

### **GEOL5304 – SOLID EARTH GEOMECHANICS**

3 Lecture Hours · 0 Lab Hours

Application of continuum mechanics to understanding deformation in the earth, including mechanical analysis of natural geologic structures such as faults, folds, lava flows, and dikes, as well as practical problems related to reservoir geomechanics and mining applications. Prerequisite: GEOL3443, MATH2325, PHYS1441 or PHYS 1443.

### **GEOL5306 – ENVIRONMENTAL GEOLOGY**

3 Lecture Hours · 0 Lab Hours

Hydrological systems, water quality, and behavior of pollutants; atmospheric systems, air quality, and effects of pollutants; occurrence, prediction, and amelioration of natural environmental hazards including floods, earthquakes, volcanism, and landslides.

### **GEOL5308 – PALEOCLIMATE AND CLIMATE CHANGE**

3 Lecture Hours · 0 Lab Hours

Climate change throughout geologic time, especially the last 100 million years: models of the climate system, reconstruction and modeling of past climates, abrupt climate change, warm climates, paleoclimatology, climate change and mass extinctions.

### **GEOL5309 – GEOMORPHOLOGY & QUATERNARY STRATIGRAPHY OF SEDIMENTARY SYSTEMS**

3 Lecture Hours · 0 Lab Hours

This course examines those physical processes that sculpt the surface of the Earth and result in deposition of sediments. Surface systems covered include weathering, mass wasting, rivers, shorelines, eolian processes, and glaciers. The course also examines the stratigraphic techniques used to decode the recent (2 million to present) stratigraphic record of these systems. Course is designed for geologists, biologists, and other fields concerned with interpreting and/or managing modern environments.

### **GEOL5312 – SANDSTONE PETROLOGY**

**3** Lecture Hours · **0** Lab Hours

Petrographic examination of terrigenous clastics, including textural, compositional, and diagenetic aspects. Focus on paleogeographic, tectonic, and environmental interpretation. Prerequisite: GEOL 3442.

### **GEOL5313 – CARBONATE PETROLOGY**

**2** Lecture Hours · **3** Lab Hours

Nature and composition of ancient and modern carbonate sediments and rocks in terms of their genesis, depositional environments, biological constituents, and processes involved in transport, deposition, diagenesis, and lithification. Knowledge of stratigraphy and paleontology is necessary for success in this course. Prerequisite: GEOL 3442 or permission of the instructor.

### **GEOL5320 – UNDERSTANDING GEOGRAPHIC INFORMATION SYSTEMS**

**2** Lecture Hours · **1** Lab Hour

A practical introduction to GIS and methods of creating, maintaining and displaying spatial data using the ArcGIS software.

### **GEOL5321 – ANALYSIS OF SPATIAL DATA**

**2** Lecture Hours · **1** Lab Hour

Analyzing spatial data using ArcGIS, Spatial Analyst, and 3D Analyst, topological surface analysis and modeling; 3D visualization and viewscapes; spatial statistics and data quality management. Prerequisite: GEOL 4330 or GEOL 5320.

### **GEOL5322 – GLOBAL POSITIONING SYSTEM**

**2** Lecture Hours · **1** Lab Hour

Review of the NAVSTAR Global Positioning System and its segments: space, operational control, and GPS receivers. Mechanics of the satellite constellation; GPS signal structure; data and coordinate systems; precision and accuracy; error factors; absolute (point) versus relative (differential) positioning. Various positioning techniques using several types of GPS receivers; field data collection and input into GIS programs for data analysis and presentation. Prerequisite: GEOL 4330 or GEOL 5320.

### **GEOL5323 – REMOTE SENSING FUNDAMENTALS**

**2** Lecture Hours · **1** Lab Hour

The electromagnetic spectrum and the interaction of EM waves with matter; various types of sensing devices; spectral and spatial resolution parameters; airborne and satellite sensor platforms; aerial photographs and false-color images. The sequence of data acquisition, computer processing and interpretation; sources of data; the integration of remote sensing data with other data types in GIS. Prerequisite: GEOL 4330 or GEOL 5320.

### **GEOL5324 – GEOGRAPHIC DATA ANALYSIS PROJECT**

**3** Lecture Hours · **0** Lab Hours

Acquisition, processing and analysis of a set of spatial data selected by the student with the approval of the instructor. A written report of the results is required. Prerequisite: GEOL 5320, GEOL 5321, and GEOL 5323.

### **GEOL5328 – HYDROGEOLOGY**

**3** Lecture Hours · **0** Lab Hours

Hydrologic cycle, Darcy's law, hydraulic properties, aquifer types and materials, groundwater flow to wells, fracture flow, vadose zone flow, groundwater chemistry, and groundwater modeling; a term paper about the relevant topics covered in the class is required. Prerequisites: GEOL 2446, MATH 2425

### **GEOL5332 – STABLE ISOTOPE GEOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Principals governing the fractionation and distribution of stable isotopes (C, H, N, O, S) in nature, and application of stable isotope geochemistry to environmental problems and global climate change.

### **GEOL5333 – FIELD METHODS**

**3** Lecture Hours · **0** Lab Hours

### **GEOL5334 – ANALYTICAL METHODS IN ENVIRONMENTAL SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Principals of geochemical analysis of waters, rocks and soils, and gases. Methods to be covered include x-ray fluorescence and diffraction, mass spectrometry, coulometry, inductively-coupled plasma, and gas/ion chromatography with various detection methods.

### **GEOL5335 – ISOTOPES AND TECTONICS**

**3** Lecture Hours · **0** Lab Hours

An Introduction to the fundamentals of clumped isotopes, and major radiogenic and cosmogenic isotope systems and their applications to the study of earth system processes and Earth history; emphasis will be placed on applications to tectonics, geochronology, and thermochronology. Prerequisite: CHEM 1442 or GEOL 4302.

### **GEOL5342 – MICROFOSSILS AND THE CORRELATION OF SEDIMENTARY ROCKS**

**2** Lecture Hours · **3** Lab Hours

This course is an introduction to microfossil groups useful in the regional and global correlation of sedimentary rock strata throughout the Phanerozoic. Microfossils record plant, animal, and protist life forms including foraminifers, radiolarians, ostracodes, conodonts, algae, and coccolithophorids. Morphology, taxonomy, and biostratigraphy of these groups will be stressed along with the principles used in the correlation of sedimentary rocks. Prerequisite: GEOL 3441 and GEOL 3442.

### **GEOL5344 – DEPOSITIONAL ENVIRONMENTS: TERRIGENOUS CLASTICS**

**3** Lecture Hours · **0** Lab Hours

Depositional processes, physiographic and environmental components, and facies characteristics and relationships of alluvial, eolian, deltaic, clastic shoreline, shallow siliciclastic sea and deep sea clastic depositional systems. Emphasis on interpretation of ancient analogs. Prerequisite: GEOL 3442.

### **GEOL5345 – PETROLEUM GEOLOGY**

**2** Lecture Hours · **3** Lab Hours

Origin, generation and migration of petroleum; reservoirs, seals and traps; the subsurface environment; properties of petroleum; exploration and production methods; use of seismic lines and well logs; types of petroleum basins; reserves and resources.

### **GEOL5348 – MARINE GEOLOGY AND GEOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Geologic and geochemical processes of the oceans. Chemistry of seawater; geochemical and biogeochemical cycles; carbonate sediment production.

### **GEOL5350 – CONTAMINANT HYDROGEOLOGY**

**3 Lecture Hours · 0 Lab Hours**

Sources and types of organic and inorganic contaminants; the physical, chemical, and biological factors and processes that affect the transport and fate of contaminants in the subsurface; non-aqueous phase liquids and multiphase flow; and various remedial techniques of contaminated sites. Prerequisite: GEOL 4320 or GEOL 5328 (or concurrent enrollment).

### **GEOL5365 – TOPICS IN GEOLOGY**

**2 Lecture Hours · 3 Lab Hours**

Topics offered depend on student and faculty interest. Such topics might include identification of fossil fragments in thin section; magmatic processes; plate tectonics and sedimentary basin evolution; stratigraphic paleontology; sedimentary or volcanogenic ore deposition; geostatistics; geophysical archeology; and various advanced subjects in sedimentology, stratigraphy, paleontology, geophysics, geochemistry, volcanology and petrology. May be repeated for credit when topic changes.

### **GEOL5369 – SEQUENCE STRATIGRAPHY**

**3 Lecture Hours · 0 Lab Hours**

This course introduces sequence stratigraphy within context of all stratigraphy and history of sequence stratigraphy. Includes overview of sequence stratigraphy principles. Review of basic fundamental concepts of surface- and facies-based physical stratigraphy. Review of architectural element analysis, sequence stratigraphic in seismic, borehole expression of sequences and overview of subsurface stratigraphic techniques.

### **GEOL5370 – SEDIMENTARY SYSTEMS**

**3 Lecture Hours · 0 Lab Hours**

Carbonate and clastic depositional systems, recognition of facies, systems tracts, diagenetic overprint, shelf to basin profiling, and sequence stratigraphic analysis.

### **GEOL5371 – BASIN ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Topics include: the classification and characteristics of sedimentary basins and the mechanisms forming them; and the tectonic, climatic, and eustatic controls on basin subsidence and the basin fill. Applications include the influence of basin evolution on petroleum generation, migration, and accumulation. Prerequisite GEOL 3442 (Sedimentology and Stratigraphy).

### **GEOL5372 – STRUCTURAL GEOMETRY AND TECTONICS OF PETROLEUM FIELDS**

**2 Lecture Hours · 1 Lab Hour**

Structural styles of thin-skinned, basement involved and reactivated systems in shortening, extensional and strike-slip deformation. Use of structural modeling and restoration methods to test the reliability of structural interpretations.

### **GEOL5373 – RESERVOIR CHARACTERIZATION**

**3 Lecture Hours · 0 Lab Hours**

Principles, protocols, analysis and measurement of petrophysical properties (e.g., fluid content, porosity, permeability, pore size distribution, water retention curve, imbibition) of petroleum reservoir rocks.

### **GEOL5374 – SEISMIC INTERPRETATION**

**3 Lecture Hours · 0 Lab Hours**

Introduction to the methods of acquisition and processing as they relate to the interpretation of seismic records. Structural and stratigraphic interpretation methods and pitfalls using two and three dimensional seismic data. Introduction to Seismic Interpretation Software such as the Kingdom Suite from Seismic Micro Technology, Inc. Prerequisite GEOL 5345 or concurrent enrollment.

## **GEOL5375 – INTRODUCTION TO WELL LOG INTERPRETATION AND MAPPING**

**2** Lecture Hours · **2** Lab Hours

Introduction to the various types of well logs used in the petroleum industry and their petrophysical interpretations, including evaluations of porosity, water saturation, shale volume, permeability, and lithology. Introduction to techniques of contouring data and use of mapping software such as PETRA. Prerequisite GEOL 5345 or concurrent enrollment.

## **GEOL5381 – RESEARCH IN GEOLOGY**

**3** Lecture Hours · **0** Lab Hours

Independent study in various areas of research including paleontology, stratigraphy, tectonics, structural geology, sedimentology, geochemistry, petrology, geophysics, and volcanology. May be repeated for credit. Graded R.

## **GEOL5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

## **GEOL5405 – METEOROLOGY AND CLIMATOLOGY**

**3** Lecture Hours · **3** Lab Hours

A quantitative approach to the study of the structure, energy, and motions of the atmosphere.

## **GEOL5409 – APPLIED GEOPHYSICS**

**3** Lecture Hours · **3** Lab Hours

Geophysical Techniques used to determine the presence and extent of deposits of minerals and the subsurface structure of selected localities from field methods.

## **GEOL5410 – PHYSICAL OCEANOGRAPHY**

**3** Lecture Hours · **3** Lab Hours

Oceanographic instrumentation and measurements; physical properties of sea water; heat and salt budgets; thermal distribution; wind-driven and thermohaline circulation; mass of the world's oceans; waves and tides. Prerequisites: PHYS 1443; MATH 2425

## **GEOL5698 – THESIS**

**0** Lecture Hours · **0** Lab Hours

Graded F, P, R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
    - Architecture
    - Landscape Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Architecture

### Dean **Donald Gatzke**

### Associate Dean **David Jones**

Web [www.uta.edu/architecture/](http://www.uta.edu/architecture/)

Email [soa@uta.edu](mailto:soa@uta.edu)

Phone 817.272.2801

Fax 817.272.5098

203 Architecture Building  
**601 W Nedderman Dr**  
Box 19108, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Architecture

**Kathryn Holliday**  
**Heath Macdonald**  
**Kevin Sloan**  
**Bijan Youssefzadeh**

#### Associate Dean

**David Jones**

#### Professor

**Edward Baum**  
**Robert Hamilton**  
**Craig Kuhner**  
**John McDermott**  
**Madan Mehta**

#### Associate Professor

**George Gintole**  
**David Hopman**  
**John Maruszczak**  
**Steven Quevedo**

#### Senior Lecturer

**Bill Boswell**

#### Lecturer

**Ogden Bass**

#### Landscape Architecture

#### Associate Professor

**Pat Taylor**

---



## Graduate Advisors

### Cheryl Donaldson

Architecture, M.ARCH.  
Architecture, Non-Degree Seeking

### David Jones

Architecture, M.ARCH.

### Pat Taylor

Landscape Architecture, M.L.A.

### Bijan Youssefzadeh

Architecture, M.ARCH.  
Architecture, Non-Degree Seeking

## Programs

### Mission and Philosophy

### History and Overview

### Accreditation

### Scholastic Activity and Research Interests of the Faculty

### Special Programs and Opportunities

## Programs

- [Master of Architecture](#)
- [Master of Landscape Architecture](#)

## Mission and Philosophy

The mission of the graduate Architecture and Landscape Architecture programs is to prepare students for sustained contributions and leadership in the design professions. This mission occurs in partnership with the larger University. Together the programs and the University share the aim of educating broadly to the demands of a complex society and, more specifically, to the demands of sophisticated and changing professions.

## History and Overview

Architecture was first taught at what is now The University of Texas at Arlington in the early 1940s as a two-year, non-degree program within the School of Engineering. In 1968, with the support of professional architects in the Dallas/Fort Worth area, architecture became a department of the College of Liberal Arts, granting the degree of Bachelor of Science in Architecture. The department prospered, and by 1973 a decision was made to establish a separate school of architecture based on a four-year undergraduate program with a two-year master of architecture program as the professional degree.

By 1978, the School of Architecture and Environmental Design (as it was named in 1974) had an enrollment of more than 1,000 students with 31 full-time faculty. Four programs were included at that time: architecture, interior design, landscape architecture, and city and regional planning. Subsequently, planning moved to the Institute of Urban Studies. In 1989, the school was renamed the School of Architecture.

Architecture and landscape architecture are seen as both the means and the goal of the education we offer. As *means*, our fields provide a ready path to the larger domain of ideas, history and the human condition. Architecture was seen, after all, as one of the essential liberal arts during the Renaissance. As *goals*, our fields call upon us to learn specific professional knowledge and skills they focus our attitudes and abilities to produce tangible, concrete things. This demand that we alternately widen and narrow our vision is one of the great strengths of the fields and is one source of their effectiveness as courses of study.

Within a broad curriculum, design as a discipline and a process is emphasized. Students are encouraged to give rich visual and material substance to both theoretical and pragmatic ideas. The context for design at UT Arlington centers on the contemporary urban condition, an approach



appropriate for a school at the heart of a diverse, expanding and internationally oriented region like Dallas/Fort Worth.

The school's location at the center of the Dallas/Fort Worth area is especially important for students of architecture and landscape architecture. Almost every cultural, social and professional opportunity is nearby. The urban setting serves as a laboratory to observe the issues that confront current design and to test the proposals put forward. Built work by many of the foremost contemporary architects and landscape architects may be experienced and studied firsthand. Kahn, Pei, Wright, Johnson, Meier, Legoretta, Rudolph, Giurgola, Barnes, Predock, Holl, KPF, Kiley and Walker all have major projects here.

The School of Architecture offers large and up-to-date facilities for research and study. Constructed in 1984, the Architecture Building houses studios, classrooms and offices in addition to a CAD laboratory, a photography studio, a materials shop, a slide library and the Architecture and Fine Arts Library, with 40,000 books and 190 periodicals. The UT Arlington Libraries contains more than 1 million volumes, and students have access to The University of Texas System Library, which house 12 million volumes.

The School of Architecture has an enrollment of approximately 1,000 students, of whom about 160 are graduate students. They come from all parts of the United States and the world; more than 20 percent are international students. About one-third of the graduate students are women.

In terms of recognition of quality, 134 School of Architecture students have received awards in 63 major design or research competitions over the last 10 years, most at the national or international level. This unsurpassed record of competitive accomplishment reflects the education focus of the school. Developed student abilities, along with a tradition of integrating work and academic experience, give UT Arlington graduates ready entry and advancement in the professional world.

### **Accreditation**

The school offers the Master of Architecture and the Master of Landscape Architecture as first professional degrees in the respective programs. The former is accredited by the National Architecture Accrediting Board and the latter by the Landscape Architecture Accrediting Board. The M.Arch. and the M.L.A. taken as second, or post-professional degrees, do not carry professional accreditation.

### **Scholastic Activity and Research Interests of the Faculty**

The faculty-full-time, adjunct and part-time-are involved in their areas of academic and professional interest. This takes many forms: built projects, design studies and competitions, scholarly writing and applied research. This work enriches the teaching mission and provides contributions to the larger community. For a detailed listing of faculty activity, see the **Faculty Catalog**, available from the School of Architecture.

### **Special Programs and Opportunities**

Visiting faculty members are an integral part of the graduate program at UT Arlington. Noted teachers from other schools in the United States and abroad as well as distinguished practicing designers offer advanced studios and courses each year. Thus, students have access to both a core of permanent faculty members and to a changing spectrum of approaches and values. In addition to on-campus coursework, graduate students may study and travel abroad as an integrated part of the curriculum. The school maintains semester-long, full-credit student exchanges during the academic year with architecture schools at the Universities of Barcelona (Spain,) Lund (Sweden,) Innsbruck (Austria,) and Cottbus (Germany.) During the summer, there is a full-credit, five-week travel program to Rome, Florence and Verona, Italy.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Business

### Dean [Rachel Croson](#)

Associate Dean [Gregory Frazier](#)  
Associate Dean [Chandra Subramaniam](#)

Web [www.uta.edu/business/](http://www.uta.edu/business/)  
Email [question@uta.edu](mailto:question@uta.edu)  
Phone 817.272.2881  
Fax 817.272.2073

334 Business Building  
[701 S West Street](#)  
Box 19377, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Accounting

[Sandra Bitenc](#)  
[Billy Brewster](#)  
[Terra Mcghee](#)  
[Stephanie Rasmussen](#)

#### Professor

[Thomas Hall](#)  
[Li-Chin Jennifer Ho](#)  
[Donald McConnell](#)  
[Martin Taylor](#)  
[Jeffrey Tsay](#)

#### Associate Professor

[Bethane Hall](#)  
[Richard Mark](#)  
[Terrance Skantz](#)  
[Chandra Subramaniam](#)

#### Assistant Professor

[Jap Efendi](#)  
[Glyn Winterbotham](#)

#### Assistant Adjunct Professor

[Sandra Henderson](#)

#### Senior Lecturer

[John Repsis](#)

#### Lecturer

[Carly Andrews](#)

#### Business Administration

Assistant Dean

**David Mack**

**Coordinator of International Programs**

**Pui-Ying Chin**

**Director**

**Melanie McGee**

**EMBA Executive Director**

**James Ellis**

**Associate Professor**

**Edmund Prater**

**Economics**

**Professor**

**William Crowder**

**Daniel Himarios**

**Roger Meiners**

**Michael Ward**

**Associate Professor**

**Chi Young Choi**

**Aaron Smallwood**

**Mahmut Yasar**

**Assistant Professor**

**Joshua Price**

**Christy Spivey**

**Visiting Assistant Professor**

**Shalah Mostashari**

**Clinical Professor**

**Jane Himarios**

**Associate Clinical Professor**

**Olga Isengildina**

**Timothy Wunder**

**Finance and Real Estate**

**John Dowdy**

**Professor**

**John David Diltz**

**Associate Professor**

**Darren Hayunga**

**Sanjiv Sabherwal**

**Salil Sarkar**

**Assistant Professor**

**John Adams**

**Necmettin Gormus**

**Arun Narayanasamy**

**Assistant Adjunct Professor**

**Daniel Lowrance**

**Professor Emeritus**

**Vincent Apilado**

**Clinical Professor**

**Fred Forgey**

**Lecturer**

**Lee Schwemer**

**Health Care Administration**

**Director**

**Demetria Wilhite**

**Clinical Professor**  
[Mike West](#)

## **Information Systems & Operations Management**

[Kay yut Chen](#)

**Professor**  
[Revenor Baker](#)  
[Mark Eakin](#)  
[Gregory Frazier](#)  
[Radha Mahapatra](#)  
[M K Raja](#)  
[Craig Slinkman](#)  
[James Teng](#)  
[Mary Whiteside](#)

**Associate Professor**  
[Alan Cannon](#)  
[Sridhar Nerur](#)  
[Edmund Prater](#)  
[Riyaz Sikora](#)  
[Jingguo Wang](#)  
[Jie Zhang](#)

**Senior Lecturer**  
[Carolyn Davis](#)

## **Management**

**Professor**  
[Myrtle Bell](#)  
[Deepak Datta](#)  
[David Gray](#)  
[Jim Quick](#)  
[Abdul Rasheed](#)

**Associate Professor**  
[George Benson](#)  
[Wendy Casper](#)  
[Susanna Khavul](#)  
[James Lavelle](#)  
[Margaret Mcfadyen](#)  
[Jeffrey Mcgee](#)  
[Gary McMahan](#)  
[Liliana Nordtvedt](#)

**Assistant Professor**  
[Marcus Butts](#)  
[Feirong Yuan](#)

**Assistant Clinical Professor**  
[Janice Baldwin](#)  
[Beverly George](#)  
[Jeanne Michalski](#)  
[Terrance Wilensky](#)

**Lecturer**  
[Dennis Veit](#)

## **Marketing**

**Assistant Professor and Graduate Advisor of Marketing Department Ph.D. Program**  
[Ritesh Saini](#)

**Professor**  
[Lawrence Chonko](#)  
[Xueming Luo](#)

**Associate Professor**  
[Elten Briggs](#)  
[Traci Freling](#)  
[Douglas Grisaffe](#)

**Assistant Professor**  
**Narayanan Janakiraman**  
**J Fernando Jaramillo**  
**Adwait Khare**  
**Zhiyong Yang**

**Clinical Professor**  
**Robert Rogers**

**Associate Clinical Professor**  
**Gary Lacefield**

**Assistant Clinical Professor**  
**Michael Richarme**

---

## Graduate Advisors

**Wendy Casper**  
*Management (Business Administration), Ph.D.*

**Carolyn Davis**  
*Information Systems, M.S.*

**John David Diltz**  
*Quantitative Finance, M.S.*

**Fred Forgey**  
*Real Estate, M.S.*

**Gregory Frazier**  
*Accounting, Ph.D.*  
*Business Administration, Ph.D.*  
*Finance (Business Administration), Ph.D.*  
*Information Systems (Business Administration), Ph.D.*  
*Management (Business Administration), Ph.D.*  
*Marketing (Business Administration), Ph.D.*

**Linda Goggans**  
*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**David Mack**  
*Executive M.B.A.*

**Radha Mahapatra**  
*Information Systems (Business Administration), Ph.D.*

**Rebecca Neilson**  
*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**Edmund Prater**  
*Business Administration, Ph.D.*

**John Repsis**  
*Accounting, M.S.*  
*Professional Accounting, M.P.A.*  
*Taxation, M.S.*

**Robert Rogers**  
*Marketing Research, M.S.*

**Ritesh Saini**  
*Marketing (Business Administration), Ph.D.*  
*Marketing Research, M.S.*

**Salil Sarkar**

*Finance (Business Administration), Ph.D.*

**Chandra Subramaniam**

*Accounting, M.S.  
Accounting, Non-Degree Seeking  
Business Administration, M.B.A. (Flexible Format)  
Business Administration, M.B.A. (Professional Cohort)  
Business Administration, M.B.A. Non-Degree Seeking  
Economics, Non-Degree Seeking  
Executive M.B.A.  
Graduate Advanced Studies Business Certificate  
Health Care Administration, Non-Degree Seeking  
Healthcare Administration, M.S.  
Human Resource Management, M.S.  
Human Resource Management, Non-Degree Seeking  
Information Systems, M.S.  
Information Systems, Non-Degree Seeking  
Marketing Research, M.S.  
Marketing Research, Non-Degree Seeking  
Online Business Administration (Online M.B.A.)  
Professional Accounting, M.P.A.  
Professional Accounting, Non-Degree Seeking  
Quantitative Finance, M.S.  
Quantitative Finance, Non-Degree Seeking  
Tax Certificate  
Taxation, M.S.  
Taxation, Non-Degree Seeking*

**Martin Taylor**

*Accounting, Ph.D.*

**Dennis Veit**

*Human Resource Management, M.S.*

**Demetria Wilhite**

*Healthcare Administration, M.S.*

## Programs

Graduate programs include the Ph.D. in Business Administration and the Master of Business Administration at the college level and ten master's level specialized programs in the departments. All programs are listed below.

### Graduate Programs at the College Level

- **Master of Business Administration**
- **Executive Master of Business Administration**
- **Ph.D. in Business Administration**

### Specialized Programs at the Department Level

- **Master of Professional Accounting**
- **Master of Science in Accounting**
- **Master of Science in Taxation**
- **Master of Arts in Economics**
- **Master of Science in Health Care Administration**
- **Master of Science in Information Systems**
- **Master of Science in Marketing Research**
- **Master of Science in Human Resource Management**
- **Master of Science in Quantitative Finance**
- **Master of Science in Real Estate**

## **Mission and Philosophy**

### **History and Overview**

### **Accreditation**

### **Scholastic Activity and Research Interests of the Faculty**

### **Special Programs and Opportunities**

- **The Graduate Advanced Studies Program**
- **Special Students**
- **Dual Degree Programs**
- **Professional Programs in Accounting (PPIA)**
- **Fast Track Programs**
- **Facilitated Admission of Outstanding UT Arlington Undergraduates**
- **Internship Program**
- **Study Abroad/Exchange Programs**

### **Waivers and Transfer Credit**

## **Mission and Philosophy**

The College of Business strives to be a recognized contributor in the field of business education and research. It is our mission to build and maintain a quality educational environment, creating value for our constituencies.

Our achievement-focused programs produce quality graduates at all degree levels. These programs respond to changing needs and opportunities, generate and communicate new knowledge and ideas to benefit the scholarly, public and private sectors, and provide a wide range of intellectual and professional services locally, regionally, nationally and internationally.

Our philosophy can be summarized in the following objectives:

1. To discover and disseminate knowledge that, through its relevance and rigor, benefits our students, practitioners and other constituencies.
2. To continue to develop and provide instructional programs that meet the needs of our students: part-time, full-time, employed and international.
3. To maintain a rigorous and effective client-focused environment that capitalizes on our urban setting.
4. To continually improve all our academic programs, with special emphasis on master's programs, to effectively address the diversified needs of the Dallas/Fort Worth Metroplex.
5. To further our community interaction by offering off-campus courses, distance education and professional development seminars.
6. To enhance the visibility of the college and improve its financial strength through increased external funding.
7. To provide advisory services to academic, professional and other organizations.

## **History and Overview**

Since its origination in 1959, the College of Business has been one of the fastest growing business schools in the nation. This growth has mirrored the dynamic growth of the D/FW Metroplex as the college has worked hard to provide high quality educational programs. The college is organized into six academic departments: Accounting, Economics, Finance, Information Systems and Operations Management, Management, and Marketing. A total of 103 full-time equivalent faculty organize and conduct classes, including 88 with doctoral degrees from some of the top schools in



the nation. The college currently enrolls 5,500 students, of whom more than 1,500 are enrolled in 12 graduate business programs.

## Accreditation

The University of Texas at Arlington and its College of Business is fully accredited in business and accounting at both the undergraduate and graduate levels by the AACSB-International.

## Scholastic Activity and Research Interests of the Faculty

Many of the faculty have professional certifications and years of experience in the business world, including serving as consultants, expert witnesses, and in other professional capacities. They actively engage in research that enables them to be at the forefront of the discovery of new knowledge in their fields. All these activities allow them to bring professional experiences and new ideas into the classroom.

## Special Programs and Opportunities

### The Graduate Advanced Studies Program

This is a certificate program open to those holding a graduate degree in a business field. Applicants must meet normal MBA admissions requirements and complete 12-21 semester hours of graduate courses in a specified area. This is an excellent way for business professionals to update their business skills in advanced areas.

### Special Students

An applicant can gain admission as a special student in the College of Business, but he/she must meet the same admission requirements as those unconditionally admitted. In order to take masters and/or doctoral level courses in the College of Business, a student must be admitted as a graduate student.

### Dual Degree Programs

The college offers a rich array of dual degree opportunities that build synergistic skill sets that prepare students for more advanced career opportunities. While most dual degree programs include two graduate business degrees, the Professional Management Option in the MBA program allows professionals with undergraduate degrees in engineering, architecture, nursing, education, and urban affairs to complete a master's degree in that field along with the MBA. Dual degree programs allow students to earn two degrees with a substantial reduction in course requirements. The MBA Program also offers a special dual degree with Thunderbird School of Global Management.

### Professional Programs in Accounting (PPIA)

The PPIA program is designed to meet the needs of exceptional students. The Professional Program in Accounting allows a student to earn both a bachelor of business administration and master of science in accounting or taxation. Once accepted into this integrated program, students may enroll in graduate courses prior to completing their undergraduate degree. The program may be completed in approximately one less semester than required to earn separate bachelor's and master's degrees.

### Fast Track Programs

The Fast Track Program enables outstanding undergraduate UT Arlington Business students to satisfy degree requirements that will lead to a master's degree in Business Administration (MBA), Human Resource Management, Real Estate, Information Systems, or Economics while completing

their undergraduate studies. If admitted, students will be allowed to take select graduate courses that may be used to satisfy both bachelor's and master's degree requirements. Admitted students will be allowed to complete 6 to 9 hours of selected graduate coursework as an undergraduate student. A GPA of 3.0 on the graduate work is required to continue taking graduate courses. Any Fast Track student who completes the 6 to 9 hours of graduate coursework with grades of B or better will be automatically admitted to Graduate School. The student would then be awarded his or her bachelor's degree. The student will not be required to take the GMAT, complete the Graduate School Application, and will have the related application fees waived.

### **Facilitated Admission of Outstanding UT Arlington Undergraduates**

The following programs participate in the Facilitated Admissions program: Master of Business Administration, Master of Arts in Economics, Master of Science in Human Resource Management, Master of Science in Information Systems, Master of Science in Marketing Research and Master of Science in Real Estate. Students pursuing Facilitated Admission must demonstrate quantitative proficiency. For details on admission into the program please refer to UT Arlington's Graduate Catalog Special Admissions Programs under Admission Requirements and Procedures.

### **Internship Program**

Graduate students are encouraged to participate in internships to supplement and complement classroom education by providing valuable experience and training in their chosen area of expertise. Internships allow students to meet and interact with professionals in the work setting, identify and develop critical professional skills, clarify their own career goals and interests, and develop important contacts for future development. This internship program is open to all graduate students who have completed nine hours of graduate courses, are in good academic standing (GPA => 3.0), and have secured their advisor's approval for up to three hours of graduate credit. Interested students should ask for a fact sheet and an application in the Graduate Business Services Office. After gaining the advisor's approval, students will complete an application and meet with the appropriate departmental internship coordinator. Once an internship is obtained, the coordinator will monitor progress and assign a Pass/Fail grade.

### **Study Abroad/Exchange Programs**

The leaders for the 21st century will be deeply involved in business opportunities around the world. Study abroad/exchange programs are available to help students prepare in both curricular and extracurricular ways for these future international leadership roles. Students wishing to study abroad are encouraged to review the many opportunities contained in the Study Abroad Library in the International Office. Once a specific program is identified, students discuss the available courses with their advisor to ensure they meet degree requirements. Depending on their terms, study abroad/exchange programs may allow students to complete courses as resident credit or as transfer credit.

### **Waivers and Transfer Credit**

There are three types of required courses: deficiency, core and advanced. Applicants may have both deficiency and core courses waived without the requirement for a substitute course if they have completed a similar course, during the last 10 years, at a recognized college or university and received a "B" or better grade (3.0) in that course.\* Extensions to this 10-year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience.

A maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by the program advisor. Transfer of graduate courses from other universities will be considered on a case-by-case basis. All work submitted for transfer credit must have been completed no more than six years before completion of a graduate program at the University of Texas at Arlington.

\* Note: The University of Texas at Austin offer Business Foundations Programs (BFP) for non-

business majors that provide solid foundations in basic business concepts. BFP courses and courses from equivalent programs for non-business majors at other colleges/universities may not be used for course waiver credit.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
    - Curriculum and Instruction
    - Educational Leadership and Policy Studies
    - Kinesiology
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Education and Health Professions

### Dean **Jeanne Gerlach**

Associate Dean **Carrie Ausbrooks**  
Associate Dean **Ann Cavallo**  
Associate Dean **Christopher Ray**

Web [www.uta.edu/coehp/](http://www.uta.edu/coehp/)  
Email [education@uta.edu](mailto:education@uta.edu)  
Phone 817.272.2591  
Fax 817.272.2530

500 Hammond Hall  
**701 Planetarium Pl**  
Box 19227, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Educational Curriculum & Instruction

[Joyce Myers](#)

#### Professor

[Ann Cavallo](#)  
[Mary Crow](#)  
[Christopher Kribs](#)  
[Andrew Milson](#)  
[Luis Rosado](#)  
[Marc Schwartz](#)  
[John Smith](#)

#### Associate Professor

[Joohee Lee](#)  
[Jon Leffingwell](#)  
[Jodi Tommerdahl](#)  
[Jiyoon Yoon](#)

#### Assistant Professor

[Carla Amaro-Jimenez](#)  
[Amber Brown](#)  
[Holly Hungerford-Kresser](#)  
[Evguenia Malaia](#)  
[Leisa Martin](#)  
[Mohan Pant](#)  
[Kathryn Pole](#)  
[Peggy Semingson](#)

#### Educational Leadership and Policy Studies

[Taryn Allen](#)

Casey Brown  
Bradley Davis  
Daniel B Saunders  
Maria Trache  
Yi Zhang

**Professor**

Jeanne Gerlach

**Associate Professor**

Carrie Ausbrooks  
James Hardy  
Rhonda McClellan  
Lewis Wasserman

**Assistant Professor**

Ifeoma Amah  
Barbara Tobolowsky

**Assistant Clinical Professor**

Ernest Johnson

**Senior Lecturer**

Kent Gardner

**Lecturer**

Harold Smith

**Special Assistant**

Ronald Caloss

**Kinesiology**

Robert Brothers  
Paul Fadel  
Mark Haykowsky  
Michael Nelson  
Zui Pan

**Professor**

John Buckwalter  
A Louise Fincher  
Barry McKeown  
Mark Ricard

**Associate Professor**

Paul McDonough  
Larry Nelson  
Cynthia Trowbridge  
Judy Wilson

**Assistant Professor**

Priscila Cacola  
Jean Hargreaves  
David Keller  
Rhonda Prisby  
Christopher Ray  
Jake Resch

**Assistant Clinical Professor**

Paul Krawietz

---

**Graduate Advisors**

**Robert Brothers**

*Athletic Training, M.S. Non Thesis*  
*Exercise Science, M.S.*  
*Exercise Science, Non-Degree Seeking*  
*Kinesiology BS to PHD-DB*  
*Kinesiology-PhD*

**Casey Brown**

*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Mary Crow**

*School Counselor Certificate*

**Caitlin Guerrero**

*Ed. Curriculum & Instruction, Special Student*

*Ed. Curriculum & Instruction, M.Ed.*

*Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics*

*Ed. Curriculum & Instruction, M.Ed. Non Thesis Science*

*Ed. Curriculum & Instruction, M.Ed. Writing Focus*

**Ernest Johnson**

*Ed. Leadership & Policy Studies, M.Ed.*

**David Keller**

*Athletic Training, M.S. Non Thesis*

*Exercise Science, M.S.*

*Exercise Science, Non-Degree Seeking*

**Paul Krawietz**

*Athletic Training, M.S. Non Thesis*

**Teaira Little**

*Ed. Curriculum & Instruction, M.Ed.*

**Joyce Myers**

*Ed. Curriculum & Instruction, M.Ed.*

**Mark Ricard**

*Exercise Science, M.S.*

**Marc Schwartz**

*Mind, Brain and Education, M.Ed. Non Thesis*

**Barbara Tobolowsky**

*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Mission**

**History and Overview**

**Scholastic Activity and Research Interests of the Faculty**

- **Department of Curriculum and Instruction**
- **Department of Educational Leadership and Policy Studies**
- **Department of Kinesiology**

**Special Programs and Opportunities**

**Education Career Services**

- **Online Master's Degrees**
- **Certification and Advising Services**
- **Recommendation to the State Board for Educator Certification**
- **Office of Professional Development**
- **Office of Development and Leadership Gifts**
- **National Accreditation**

**College of Education and Health Professions Centers**

- **Southwest Center for Mind, Brain and Education**
- **Center for Educational Technology**
- **Center for K-16 Educational Policy and Research**
- **Center for Healthy Living and Longevity**

- [Center for Bilingual Education](#)
- [Center for Social Studies Education](#)
- [UTeach Arlington and the Center for Science Education](#)
- [School Counseling Certification](#)

#### Degrees and Certifications

- [Degrees](#)
- [Online Academic Partnership Degree Programs](#)
- [Educator Preparation Programs](#)
- [Supplemental Certification](#)

### Mission

The mission of the College of Education and Health Professions (COEHP) is to promote a collaborative culture of excellence in research, teaching, and service. The College is committed to fostering critical, creative thinkers prepared to engage meaningfully in a dynamic society.

### History and Overview

In 1979, The Center for Professional Teacher Education, now the College of Education and Health Professions, began offering coursework at the graduate level. In the late 1980s, a Master of Education and Teaching degree (M.Ed.T.) was approved. This degree served teachers who wanted the opportunity to extend their knowledge base in education and related fields with graduate coursework. The degree enabled students to combine graduate coursework in education with study in an academic discipline related to their teaching field or specialization. Its success led to the expansion of education offerings to include additional certifications in Reading and Educational Administration as well as supplemental certification in Bilingual Education (BIL), English as a Second Language (ESL), and Gifted and Talented (G/T).

As one of only a few Texas universities authorized to offer post baccalaureate teacher certification at the graduate level, the College of Education and Health Professions began offering graduate level teacher certification with an M.Ed.T. in the summer of 1998. With expansion of program offerings, the M.Ed.T. no longer met the needs of all degree-seeking students. In 1999, the College of Education and Health Professions added two new master's degree programs, a Master of Education (M.Ed.) in Educational Leadership and Policy Studies and a Master of Education (M.Ed.) in Curriculum and Instruction.

The M.Ed.T. is now offered exclusively to students seeking teacher certification (early childhood - grade 6, middle level, secondary and all level) at the graduate level. The M.Ed. in Educational Leadership and Policy Studies is available to students pursuing principal certification, principal certification emphasizing dual language, as well as higher education administration. The M.Ed. in Curriculum and Instruction (C&I) is for educators wanting to extend their knowledge in education and related fields, including science and mathematics. The M.Ed. in C&I also serves students wanting to earn a master's degree along with Reading Specialist Certificate and the Master Reading Teacher Certificate. The Department also offers the M.Ed. in C&I with science, mathematics, or social studies education as specialization areas. Supplemental certification in Bilingual Education and English as a Second Language may also be added to the M.Ed. in C&I. Superintendent certification is also available.

The Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies was first offered in the summer of 2007. With advancements in technology, many graduate courses are available via the Internet with additional courses being added each semester. The College of Education and Health Professions has an enrollment of more than 1,000 students with approximately 600 students pursuing graduate level degrees certificates.



## Scholarly Activity and Research Interests of the Faculty

College of Education and Health Professions faculty members strive to model the characteristics of the most proficient professional educators for all students aspiring to membership in the education and exercise, sport and health studies professions. Faculty members in the College of Education and Health Professions have consistently achieved recognition for their excellence in teaching in the University and beyond. They have received numerous honors, including the University of Texas System Board of Regents Outstanding Teaching Award, UT System Chancellor's Council Teaching Award, election to UT Arlington's Academy of Distinguished Teachers, and the Piper Professor award at the state level. They have also served as guest lecturers at universities across the country. In addition, numerous faculty members have received recognition for their scholarly publications and professional contributions.

The College of Education and Health Professions also values faculty scholarship for its potential impact on the increased effectiveness of teaching and learning in professional education preparation programs and in public and private school settings. Scholarly and research activities cover a variety of areas represented by the expertise of each individual faculty member.

Evidence of service to the College of Education and Health Professions, the University, the community and the practicing profession is also expected of the faculty. This includes service to local constituencies such as school districts, education service centers, parent-teacher groups, professional associations, and/or other agencies and organizations dedicated to the improvement of teaching and learning, as well as involvement in outreach programs, community events, civic leadership, and the promotion of alumni support and involvement. The extensive service activities of faculty members in the various departments have garnered additional awards from the University, the community, the state, and a variety of professional organizations.

### Department of Curriculum and Instruction

Curriculum & Instruction faculty scholarship focuses on a wide range of topics associated with teaching and learning. These include improving the effectiveness of instruction in various content areas; studying family support for learning; addressing issues associated with social sciences; using technology to enhance distance education instruction and student mentoring; online supplemental student teacher supervision; the effectiveness of service learning; the connections among brain physiology, cognition, and education; and effective practices in school counselor preparation. Funded projects include providing UT Arlington students as mentors to high school students for college success, math and science cohorts and camps, improving sustainability in post-secondary education, including college success strategies in educator preparation coursework. For more information about programs in Curriculum and Instruction in the College of Education and Health Professions, go to <http://www.uta.edu/coehp/curricandinstruct/>

### Department of Educational Leadership and Policy Studies

In the area of educational administration, research activities and publications have focused on school leadership trends, developing collaborations among the University, public, private and charter schools, fostering creativity in learning organizations, and studying school legal, policy, governance, and finance issues. Current focus is on transition research relative to students, faculty, and leadership across PK-16 school settings, between high school and beyond, and transitions between leadership levels. Other research examines how the media portrays educators and the education profession. See <http://www.uta.edu/coehp/educleadership/> for additional information about programs in Educational Leadership and Policy Studies in the College of Education and Health Professions.

### Department of Kinesiology

Faculty research interests and publications include dynamic regulation of blood pressure, pulmonary responses to exercise, postural control in elderly, the effects of therapeutic modalities on the treatment of athletic injuries, the effects of hyperbaric oxygen on the treatment of diseases, applied biomechanics, assessment and management of sports-related concussions, motor development, adapted sports, and sports pedagogy. For more information on Kinesiology



programs in the College of Education and Health Professions, see <http://www.uta.edu/coehp/kinesiology/>

## Special Programs and Opportunities

The College of Education and Health Professions offers a variety of special opportunities for learning and professional growth for graduate students. A variety of clinical field experiences, visiting authors and experts, membership in professional organizations, and specialized library resources are some of the special programs and opportunities that enrich students.

- Several graduate courses offer links to field experiences that greatly enrich the course content. This includes regular observation and participation in PK-12 classrooms and individualized administrative practicums for students seeking Principal Certification, and summer literacy clinics that bring children to campus to work with graduate students earning the Reading Specialist Certification.
- Graduate courses routinely host authors and experts in various areas to share their experiences and insights. Guests include outstanding professors from other area universities, award-winning educators, and others.
- Student organizations offer graduate students leadership opportunities.
- Student awards, scholarships, and graduate assistantships are available to graduate students who qualify.
- To support College of Education and Health Professions programs, the Library houses a Curriculum Collection and a Juvenile Collection for student use in conjunction with their education coursework.
- The Department of Kinesiology presents two lecture series each semester: the Anderson Sports Performance Lecture Series and the UTA/American College of Sports Medicine Lecture Series.
- The College of Education and Health Professions offers creative and flexible scheduling of graduate coursework to meet the needs of professional educators, including Saturday, weekend, interim and evening classes year-round.
- Distance learning via the Internet is available for an increasing number of courses.

## Education Career Services

[www.uta.edu/coehp/career](http://www.uta.edu/coehp/career), 817.272.2831, or [education.careerservices@uta.edu](mailto:education.careerservices@uta.edu).

The Education Career Services office assists education students who are seeking positions as teachers and administrators. Positive collaborative relationships with partners in the various school districts are important to the College, the districts and students. The annual College of Education and Health Professions Career Day is held in March and typically hosts over 50 school districts. Employers can list position vacancies as well as district job fairs with Education Career Services. In addition, Education Career Services offers career planning seminars, which include guidance on resume writing and developing strong interviewing and networking skills. The ultimate goal is to prepare UT Arlington students for the next step in their career development as professional educators and administrators.

## Online Master's Degrees

The College of Education and Health Professions offers graduate students convenience and quality with a master's degree in Curriculum and Instruction available entirely via the Internet. This program option includes cutting-edge graduate courses that can also lead to three Texas professional credentials: Reading Specialist, Master Reading Teacher Certifications and English-as-a-Second Language Certification. Students from as far away as New York, Georgia, and Nebraska as well as Americans teaching abroad have enrolled in online courses through this award-winning program. Contact: Dr. Joyce Myers, [rjem@uta.edu](mailto:rjem@uta.edu).

In addition, the College of Education and Health Professions offers graduate degree programs that are fully online through Academic Partnerships. These graduate programs lead to Master of Education degrees in Literacy Studies, Science Education, Mathematics Education, and Educational Leadership and Policy Studies, as well as a Superintendent Certificate. For more information on our online Academic Partnership programs, go to <http://stateu.com/uta/SearchPrograms.aspx?StudyArea=60>

## Certification and Advising Services

**Patty Motlagh**, Assistant Dean for Student Affairs

Certification and Advising Services helps students succeed by providing the information and support services needed to achieve their academic and career goals. The academic advisors are available to assist students in various stages of preparing for or furthering their careers as educators and school administrators.

Certification and Advising Services also provides information and advising regarding admission requirements and degree plan options, as well as the academic content areas, field-based experiences, state examinations, and application procedures needed to obtain teacher, principal, superintendent, and special program certification in Texas.

To schedule an advising appointment: 817.272.2956

For advising questions: [coehpadvising@uta.edu](mailto:coehpadvising@uta.edu)

## Recommendation to the State Board for Educator Certification

To be eligible for certification under all programs, a candidate must meet specific criteria set by the College of Education and Health Professions, the University, and the Texas Education Agency/State Board for Educator Certification. To be recommended to the Texas Education Agency/State Board for Educator Certification for initial teacher certification, a teacher candidate must have successfully completed the following:

Effective fall 2007, students must pass all appropriate state exams and apply for appropriate state certifications with the State Board for Educator Certification/Texas Education Agency within six months of the completion of their residency/practicum/program. If a student allows the six-month period to go by without passing all state exams and applying for certification, additional coursework and/or state exams will be required for recommendation for certification. Additional coursework will be determined by the appropriate Program Director in consultation with the faculty.

### Teacher Certification

Before you apply for certification as a teacher, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Conferred Bachelor's Degree (or higher);
2. Completed all courses on the certification plan;
3. Completed all appropriate TExES exams;
4. Completed Student Teaching or one year of approved internship on a probationary certificate.

If you do NOT meet these requirements, please wait to apply for certification until you do. If you do apply before these requirements are completed, your application will be automatically deleted. Apply at the State Board for Educator Certification (SBEC).

### Principal or Superintendent

Before you apply for certification as a Principal or Superintendent, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Conferred Master's Degree (or higher);

2. Completed all courses on the certification plan;
3. Completed all appropriate TExES exams;
4. Valid teaching certificate;
5. Two years of classroom teaching experience.

If you are a candidate who is applying for Principal or Superintendent certification, you must request that your school district mail a copy of your teacher service record indicating you taught for at least two years. Please request that your school district mail your teacher service record to the Assistant Dean for Student Affairs in the College of Education and Health Professions at UT Arlington. Then, apply to the State Board for Educator Certification (SBEC).

### **Master Reading Teacher**

If you are applying as a Master Reading Teacher, and are already certified as a Reading Specialist, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Bachelor's Degree (or higher);
2. Three years of teaching experience (service record required);
3. Completed course work.

If you are applying as a Master Reading Teacher, and are NOT already certified as a Reading Specialist, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Bachelor's Degree (or higher);
2. Completed course work;
3. Passed Master Reading Teacher TExES.

If you do NOT meet these requirements, please wait to apply for certification until you do. If you do not apply before these requirements are completed, your application will be automatically deleted.

If you are a candidate who is applying as a Master Reading Teacher, you must request your school district mail a copy of your teacher service record indicating you taught for three years. Please request your school district mail your teacher service record to the Assistant Dean for Student Affairs in the College of Education and Health Professions at UT Arlington. Then, apply to the State Board for Educator Certification (SBEC).

### **Office of Professional Development**

The Office of Professional Development supports partnerships between the College of Education and Health Professions and PK-16 schools and their communities. Partner public school districts and the College of Education and Health Professions collaborate to provide high-quality learning environments for future teachers. Prospective teacher candidates apply their knowledge of content and pedagogy during both a Field-Based Experience semester and a Student Teaching semester arranged through the Office of Professional Development. The Field-Based Experience semester gives teacher education candidates the opportunity to observe and interact with diverse student populations in a variety of formal and informal educational settings at partnership schools. During the Student Teaching semester, these pre-service teachers refine their teaching skills by working directly with students in classrooms, at designated public schools in the candidate's area of certification, guided by a cooperating mentor teacher and supervising university faculty. The Office of Professional Development coordinates the annual College of Education and Health Professions Career Day held in March and typically hosts over 50 school districts. Contact: Dr. Denise Collins, Director, Office of Professional Development, 817.272.7448, [dacollins@uta.edu](mailto:dacollins@uta.edu).

### **Office of Development and Leadership Gifts**

The Office of Development and Leadership Gifts plans, manages and directs the College of Education and Health Profession's comprehensive development program. This entails working with alumni, corporations, foundations, and friends to raise private gifts that will support and

enhance the College's strategic priorities for academic programs, student services, research efforts and outreach activities. The office works with the College of Education and Health Professions faculty and administration in the identification, cultivation, solicitation and stewardship of donors and prospects. Contact: Cathleen Anderson, Director of Development, 817.272.7451, [cfanderson@uta.edu](mailto:cfanderson@uta.edu).

### National Accreditation

The Office of the Associate Dean for Assessment provides leadership, direction, and oversight for the assessment and continuous improvement processes for national accreditation in the College of Education and Health Professions, including unit effectiveness and academic affairs as they relate to assessment and accreditation requirements. Contact: Dr. Carrie Y. Barron Ausbrooks, Associate Dean for Assessment, 871.272.5310, [causbrooks@uta.edu](mailto:causbrooks@uta.edu).

## Centers and Programs in the College of Education and Health Professions

### Southwest Center for Mind, Brain and Education

The mission of the Southwest Center for Mind, Brain and Education is to facilitate collaborative relationships among educators, policy makers, and researchers in the cognitive and developmental sciences. The Center seeks to identify and support promising research agendas at the intersection of mind, brain and education. Researchers, educators and policy makers will find a forum where ideas are welcomed and at the same time critically and rigorously examined. The Center invites individuals interested in how advances in neuroscience, genetics, and cognitive science can inform educational practice and leadership. The Center also seeks to advance educational research by recognizing, and profiting from, the role that practical experience plays in defining promising research directions. Contact: Dr. Marc Schwartz, Director, 817.272.5641, [schwarma@uta.edu](mailto:schwarma@uta.edu).

### Center for Educational Technology

The College of Education and Health Professions and UT Arlington are committed to ensuring that all learners have equitable opportunities to employ a variety of technological tools to enhance the learning process. Educational technology provides the opportunity to offer education anywhere, any time for everyone. The Center for Educational Technology addresses statewide technology initiatives for teachers and students in the State of Texas. The Center supports the faculty and students in their efforts to successfully use and understand the many new technology tools and strategies. The Center for Educational Technology also assists faculty in the development and implementation of interactive technologies, which increases the effectiveness of their pedagogy. Contact: Dr. Dana Arrowood, 817.272.7449, [arrowood@uta.edu](mailto:arrowood@uta.edu).

### Center for K-16 Education Policy and Research

The mission of the Center for K-16 Education Policy and Research, founded in the Department of Educational Leadership and Policy Studies at UT Arlington, is to produce and disseminate cutting-edge research on K-16 education and to inform education policy and practice. We are guided by the belief that educational leadership and opportunity are strengthened by research that takes systemic, integrated approaches to understanding persistent problems across the educational continuum. Contact: Dr. Daniel Saunders at [saunders@uta.edu](mailto:saunders@uta.edu).

### Center for Healthy Living and Longevity

The Department of Kinesiology's Center for Healthy Living and Longevity provides a multidisciplinary approach to improving health and functioning throughout the lifespan. Research and education initiatives focus on keeping senior citizens active, decreasing the incidence of sedentary-related diseases (diabetes, cardiovascular disease, osteoporosis, obesity, etc.), and the assessment and management of concussions. Contact: Dr. Christopher Ray, Director, 817.272.0082, [chrisray@uta.edu](mailto:chrisray@uta.edu).

## Center for Bilingual Education

Created in response to the growing number of English language learners, the Center for Bilingual Education strives to increase the number of qualified bilingual and ESL teachers in Texas. The Center prepares pre-service and in-service teachers to work with linguistically and culturally diverse student populations. The Center also provides technical support to school districts in their implementation of dual language, bilingual and ESL education programs. Additionally, the Center offers preparation for the certification examinations in the areas of the EC-6 Bilingual Generalist and the Bilingual Target Language Proficiency Test--Spanish. For information, contact Dr. Luis Rosado, Director, 817.272.7567, [rosado@uta.edu](mailto:rosado@uta.edu).

## Center for Social Studies Education

The goals of the Center for Social Studies Education are to advance social studies education research, improve social studies teacher preparation, and provide outreach to social studies learners and their teachers. The Center includes faculty from the College of Education and Health Professions, the College of Liberal Arts, and the College of Business. The Center faculty coordinate social studies teacher certification at UT Arlington, establish targeted partnerships to advance educational opportunities and excellence in social studies for under-represented and under-served populations, and facilitate collaborative relationships across colleges and universities for the advancement of P-16 teaching and learning in disciplines such as history, geography, economics, and political science. Contact: Mary Curtis, Director, [mary.curtis@uta.edu](mailto:mary.curtis@uta.edu) or <http://www.uta.edu/socialstudies>.

## UTeach Arlington and the Center for Science Education

UTeach Arlington is a science and mathematics secondary teacher preparation program jointly offered by the College of Science and the College of Education and Health Professions. It features early field experiences in PK-12 schools, guidance from Master Teachers, and scholarship and internship opportunities. UTeach courses will be added gradually over the next few years; therefore, the program is currently limited to students who will be graduating in spring 2014 or later. Students who are interested in mathematics or science education, but will be graduating prior to spring 2014, should pursue the existing secondary certification program offered through the **College of Education and Health Professions**. Secondary certifications include Composite Science, offered in the Departments of Biology and Earth and Environmental Sciences; Life Science, offered in the Department of Biology; Physical Science, offered in the Departments of Physics and Chemistry and Biochemistry; Chemistry, offered in the Department of Chemistry and Biochemistry; Physics/Mathematics, offered in the Department of Physics; and Mathematics, offered in the Department of Mathematics. Descriptions of these programs are provided in each department's section of this catalog. For information, contact: Dr. Ann Cavallo, Co-director, College of Education and Health Professions, [cavallo@uta.edu](mailto:cavallo@uta.edu); Dr. Greg Hale, Co-director, College of Science, [greghale@uta.edu](mailto:greghale@uta.edu); Dr. Ramon Lopez, Co-director, College of Science, [relopez@uta.edu](mailto:relopez@uta.edu); Erin Gonzales, UTeach Arlington Academic Advisor, 817.272.0784, [egonzales@uta.edu](mailto:egonzales@uta.edu); or visit <http://www.uta.edu/cos/uteach/index.html>.

## School Counseling Certification

The Counseling Certification Program at UT Arlington is designed for teachers who hold a master's degree in an Education-related area and who have at least two years of teaching experience. At the end of the required 15 hours of graduate coursework, successful candidates must pass the TExES certification examination for School Counselors. This will qualify them to hold positions as school counselors at any level (Pre-K through 12) in Texas schools. The six-course, 15-hour counseling program will be taught on campus during after-school hours. A six-hour supervised counseling practicum will take place in schools or on campus with school-age children. The practicum hours must be successfully accomplished in order for the candidate to be approved by UT Arlington to take the state examination. A school counselor needs to acquire the academic knowledge and skills necessary to do the job but must also have a personality, or disposition, appropriate for the helping professions. Candidates will be expected to complete the supervised practicum that will allow them the opportunity to demonstrate they can work successfully with



students and others in the educational environment. Admission requirements to the program include a completed master's degree from an accredited university in any approved area; transcripts of both undergraduate and graduate coursework; a minimum of two completed years of successful teaching either in public or private schools in any grade, K-12; an interview; and letters of recommendation from professionals. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) or contact program director Dr. Mary Lynn Crow ([mlcrow@uta.edu](mailto:mlcrow@uta.edu)) for additional information about the program and an application.

## Degrees and Certifications

Graduate work in the College of Education and Health Professions at UT Arlington may lead to the following degrees and certifications:

### Degrees

- Master of Education in Teaching (M.Ed.T.) – Early Childhood - through Grade 6
- Master of Education in Teaching (M.Ed.T.) – Middle Level
- Master of Education in Teaching (M.Ed.T.) – Secondary Level
- Master of Education (M.Ed.) in Curriculum and Instruction
- Master of Education (M.Ed.) in Curriculum and Instruction – Literacy Studies
- Master of Education (M.Ed.) in Curriculum and Instruction – Reading Specialist
- Master of Education (M.Ed.) in Curriculum and Instruction – Science Education
- Master of Education (M.Ed.) in Curriculum and Instruction – Mathematics Education
- Master of Education (M.Ed.) in Curriculum and Instruction – Social Studies Education
- Master of Education (M.Ed.) in Mind, Brain and Education
- Master of Education (M.Ed.) in Educational Leadership and Policy Studies
- Master of Science (M.S.) in Exercise Science
- Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies

### Online Academic Partnership Degree Programs

- Master of Education (M.Ed.) in Curriculum and Instruction – Literacy Studies (AP)
- Master of Education (M.Ed.) in Curriculum and Instruction – Science Education (AP)
- Master of Education (M.Ed.) in Curriculum and Instruction – Mathematics Education (AP)
- Master of Education (M.Ed.) in Educational Leadership and Policy Studies (AP)

### Educator Preparation Programs

- Early Childhood-Grade 6 Teacher
- Early Childhood-Grade 6 Bilingual Teacher
- Middle Level Teacher (Grades 4-8)
- Secondary Teacher (Grades 8-12)
- Reading Specialist
- Master Reading Teacher
- Principal
- Superintendent (offered online through Academic Partnerships)

### Supplemental Certification

- Bilingual Education
- English as a Second Language
- School Counseling

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## College of Engineering

**Dean Khosrow Behbehani**

**Dean Duane Dimos**

**Associate Dean Pranesh Aswath**

**Associate Dean Lynn Peterson**

Web [www.uta.edu/engineering/](http://www.uta.edu/engineering/)

Email [info@engineering.uta.edu](mailto:info@engineering.uta.edu)

Phone 817.272.2571

Fax 817.272.2548

634 Nedderman Hall

**416 S Yates St**

Box 19019, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Bioengineering

[Christopher Chen](#)

[Michael Cho](#)

[Yi Hong](#)

[Justyn Jaworski](#)

[Juhyun Lee](#)

[Jun Liao](#)

#### Professor

[Khosrow Behbehani](#)

[Cheng-Jen Chuong](#)

[Hanli Liu](#)

[Liping Tang](#)

#### Associate Professor

[Digant Dave](#)

[Kytai Nguyen](#)

[Mario Romero-Ortega](#)

#### Assistant Professor

[Georgios Alexandrakis](#)

[Young-Tae Kim](#)

[Baohong Yuan](#)

#### Adjunct Professor

[Robert Eberhart](#)

#### Civil Engineering

[Zheng Fang](#)

[S Ham](#)

[Seyed Mohsen Shahandashti](#)

[Yvette Weatherton](#)



**Professor and Chair**  
Seyedali Abolmaali

**Professor of Practice**  
Mohammad Najafi

**Professor**  
Siamak Ardekani  
Md Hossain  
Laureano Hoyos  
Anand Puppala  
James Williams  
Nur Yazdani

**Associate Professor**  
Shih-Ho Chao  
Andrew Kruzic  
Stephen Mattingly  
Stefan Romanoschi  
Melanie Sattler  
Dong-Jun Seo

**Assistant Professor**  
Hyeok Choi  
Xinbao Yu

**Senior Lecturer**  
Mostafa Ghandehari  
Srinivas Prabakar  
Seyed Mohammad Razavi

### **Computer Science and Engineering**

Sajib Datta  
Hong Jiang  
Song Jiang  
Taylor Johnson  
Jiang Ming  
Jia Rao

**Professor**  
Ishfaq Ahmad  
Upendranath Chakravarthy  
Gautam Das  
Sajal Das  
Chris Ding  
Ramez Elmasri  
Farhad Kamangar  
Mohan Kumar  
David Kung  
Fillia Makedon  
Lynn Peterson  
Roger Walker  
Gergely Zaruba

**Associate Professor**  
Vassilis Athitsos  
Hao Che  
Leonidas Fegaras  
Jean Gao  
Heng Huang  
Manfred Huber  
Yu Lei  
Chengkai Li  
Donggang Liu  
Yonghe Liu  
Bob Weems  
Matthew Wright

**Assistant Professor**  
Christoph Csallner  
Junzhou Huang

[Gian-Luca Mariottini](#)

**Senior Lecturer**

[Darin Brezeale](#)  
[Bahram Khalili](#)  
[David Levine](#)  
[James Mike O'Dell](#)

**Electrical Engineering**

[R Stephen Gibbs](#)  
[Henry Kearny](#)  
[Ramtin Madani](#)  
[Yuze Sun](#)  
[Yan Wan](#)

**Professor**

[Kambiz Alavi](#)  
[Jonathan Bredow](#)  
[Donald Butler](#)  
[Ronald Carter](#)  
[Zeynep Celik-Butler](#)  
[Jung-Chih Chiao](#)  
[Venkat Devarajan](#)  
[George V Kondraske](#)  
[Wei-Jen Lee](#)  
[Frank L Lewis](#)  
[Qilian Liang](#)  
[Robert Magnusson](#)  
[Michael T Manry](#)  
[Kamisetty R Rao](#)  
[Harry Stephanou](#)

**Associate Professor**

[W Alan Davis](#)  
[William E Dillon](#)  
[Sungyong Jung](#)  
[Soontorn Oraintara](#)  
[Dan Popa](#)  
[Saibun Tjuatja](#)  
[Michael Vasilyev](#)  
[Weidong Zhou](#)

**Assistant Professor**

[Ali Davoudi](#)  
[Samir Iqbal](#)  
[Ioannis Schizas](#)  
[David A Wetz](#)

**Senior Lecturer**

[Rasool Kenarangui](#)  
[Howard Russell](#)

**Industrial and Manufacturing Systems Engineering**

[Paul Componation](#)  
[Shouyi Wang](#)

**Professor**

[Victoria Chen](#)  
[Herbert Corley](#)  
[Donald Liles](#)  
[John Priest](#)

**Associate Professor**

[Brian Huff](#)  
[Sheik Imrhan](#)  
[Erick Jones](#)  
[Jamie Rogers](#)  
[Jay Rosenberger](#)

**Assistant Professor**

[Susan Ferreira](#)

Li Zeng

**Senior Lecturer**  
Bonnie Boardman

## Materials Science and Engineering

Duane Dimos  
Kyungsuk Yum

**Professor**  
Pranesh Aswath  
Ronald Elsenbaumer  
Choong-Un Kim  
Efstathios Meletis

**Associate Professor**  
Yaowu Hao  
Seong Jin Koh

**Assistant Professor**  
Fuqiang Liu

**Research Professor**  
Nai Yuen Chen  
Wiley P Kirk  
Harry Fred Tibbals

## Mechanical & Aerospace Engineering

Endel larve  
Baxter Mullins  
Flora Pinegar  
Sunand Santhanagopalan  
Robert Taylor

**Professor**  
Dereje Agonafer  
Erian Armanios  
Wen Chan  
Abdolhossein Haji-Sheikh  
David Hullender  
Kent Lawrence  
Frank Lu  
Cheng Luo  
Seiichi Nomura  
Bo Wang  
Donald Wilson  
Robert Woods  
Seung You

**Associate Professor**  
Bernd Chudoba  
Dragos Dancila  
Brian Dennis  
Atilla Dogan  
Haiying Huang  
Andrew Makeev  
Desheng Meng  
Panayiotis Shiakolas  
Kamesh Subbarao  
Albert Tong

**Assistant Professor**  
Ashfaq Adnan  
Alan Bowling  
Robert Harris  
Ankur Jain  
Daejong Kim  
Luca Maddalena  
Luca Massa  
Hyejin Moon  
Donghyun Shin

**Bo Yang**

**Professor Emeritus**  
**Roger Goolsby**

**Senior Lecturer**  
**Zhen Han**  
**Ratan Kumar**  
**Nancy Michael**  
**Clarence Wimberly**

**Lecturer**  
**Cecil Harris**

---

**Graduate Advisors**

**Natalie Burden**

*Materials Science and Engineering, B.S. to Ph.D.*  
*Materials Science and Engineering, Ph.D.*

**Sajib Datta**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science Unmanned Vehicle Systems Certificate*  
*Software Engineering, M.SWEN.*

**W Alan Davis**

*Electrical Engineering, M.Engr. Non Thesis*  
*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

**William E Dillon**

*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

**Atilla Dogan**

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, M.Engr.*  
*Aerospace Engineering, M.S.*  
*Aerospace Engineering, Ph.D.*

**Ramez Elmasri**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Kristiana Hamedi**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*

**Sheik Imrhan**

*Industrial Engineering, M.Engr.*  
*Industrial Engineering, M.S.*  
*Industrial Engineering, Ph.D.*

**Erick Jones**

*Logistics, M.S.*

**Bahram Khalili**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*

*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Seong Jin Koh**

*Materials Science and Engineering, M.Engr.*  
*Materials Science and Engineering, M.S.*  
*Materials Science and Engineering, Ph.D.*

**Donald Liles**

*Engineering Management, M.S.*  
*Systems Engineering, M.S.*

**Kytai Nguyen**

*Biomedical Engineering, M.S.*  
*Biomedical Engineering, Ph.D.*

**Seiichi Nomura**

*Mechanical Engineering, M.Engr.*  
*Mechanical Engineering, M.S.*  
*Mechanical Engineering, Ph.D.*

**James Mike O'Dell**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Flora Pinegar**

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, Ph.D.*  
*Mechanical Engineering, B.S. to Ph.D.*  
*Mechanical Engineering, Ph.D.*

**Sara Ridenour**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*  
*Master of Construction Management*

**Melanie Sattler**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.S.*  
*Civil Engineering, Ph.D.*

**Liping Tang**

*Biomedical Engineering, B.S. to Ph.D.*  
*Biomedical Engineering, Ph.D.*

**Mission**

**History and Overview**

**Research Interests of the Faculty**

**Programs**

**Mission**

The mission of the College of Engineering is to meet the needs of industry and society by:

- Producing highly competent graduates at the baccalaureate, master's and doctoral levels,

- Performing state-of-the-art research in the disciplines comprising the diverse fields of engineering, and
- Providing service to the community and engineering profession through outreach programs, involvement in professional societies, consulting, and interaction with industry and government.

## History and Overview

The College of Engineering at The University of Texas at Arlington is the third largest engineering college in Texas, and is the largest and most comprehensive in North Central Texas, with over 3,300 students and 150 faculty members in eight disciplines. Additionally, there are more than 20 research centers producing more than \$20 million in research for government and private industry.

The engineering program at UT Arlington evolved from a two-year program that was established at North Texas Agricultural College during the 1930s and 1940s. North Texas Agricultural College became Arlington State College, and in 1959 approval was given to begin a four-year engineering program. In 1965, Arlington State College joined The University of Texas System as The University of Texas at Arlington, and the first master's degree program in engineering was approved. The first Ph.D. program in engineering was added in 1969. Construction of the Engineering Laboratory Building in 1977, the Engineering Annex in 1980, the Automation & Robotics Research Institute (ARRI) in 1987, Nedderman Hall in 1988, the Nanotechnology Research and Teaching Facility in 2001 and the Engineering Office Buildings East and West in 2003 provided additional classroom and research laboratory space for the continued growth of the College of Engineering. Currently, four buildings are in the construction or planning stages: an Engineering Research Building adjoining the main engineering buildings, an expansion of the Engineering Laboratory Building, the Civil Engineering Laboratory Building, and the Center for Structural Engineering Research.

The college is a leader in distance education, providing a convenient way for working engineers to pursue a master's degree. Starting with TAGER, a dedicated microwave communications link in 1975, courses are now distributed on the Internet in streaming video, providing a very convenient access to students. More information can be found at [www.uta.edu/engineering/distance/](http://www.uta.edu/engineering/distance/).

## Research Interests of the Faculty

There is an excellent equipment infrastructure to support research in:

- nanotechnology
- microelectronics and MEMS
- robotics and manufacturing
- materials and their characterization
- pervasive computing
- intelligent systems
- software engineering
- networking
- embedded systems
- database systems
- multimedia systems
- bioinformatics
- information technology
- security
- transportation systems
- hydrology and hydraulics systems
- geotechnical engineering
- environmental engineering

- solid mechanics
- structural analysis
- aerodynamics
- flight mechanics and control
- electronic packaging
- energy systems
- optics
- statistics and optimizations
- and many more.

There are two formal research centers, the Automation & Robotics Research Institute (ARRI) and the Nanotechnology Research and Teaching Facility (NRTF), with the directors reporting to the Dean of Engineering.

Many College of Engineering faculty members collaborate with professors and researchers in other colleges at UT Arlington and other institutions in the state, around the U.S., and around the world. Therefore, for those interested in doing research as part of graduate training, there are many opportunities to work on research projects that are either within the home department or interdisciplinary with other departments.

## Programs

Graduate work in engineering at UT Arlington may lead to the master of science or doctor of philosophy in the following programs:

- **Biomedical Engineering**
- **Civil Engineering**
- **Computer Science and Engineering**
- **Electrical Engineering**
- **Industrial Engineering**
- **Materials Science and Engineering**
- **Mechanical & Aerospace Engineering**

Master's degree programs are available in:

- Logistics
- Engineering Management
- Software Engineering
- Systems Engineering

Graduate work leading to a practice-oriented master's degree usually requires a design project, report, internship or additional coursework. Details are given in the individual program descriptions that follow.

The program in Materials Science and Engineering (MSE) is under the auspices of both the College of Engineering and the College of Science. Biomedical Engineering is a joint program of the UT Arlington Bioengineering Department in association with The University of Texas Southwestern Medical Center at Dallas. The Master of Science in Logistics and Master of Science in Engineering Management are offered in partnership with the College of Business Administration. Descriptions of these programs are in the Interdepartmental and Intercampus Programs section of this catalog.

Please visit the graduate program Web site [www.uta.edu/engineering/graduate](http://www.uta.edu/engineering/graduate) for detailed information.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Liberal Arts

### Dean **Beth Wright**

Associate Dean **Elisabeth Cawthon**

Associate Dean **Kevin Gustafson**

Associate Dean **Les Riding-In**

Associate Dean **Kimberly van Noort**

Web [www.uta.edu/libarts/](http://www.uta.edu/libarts/)

Email [liberalarts@uta.edu](mailto:liberalarts@uta.edu)

Phone 817.272.3291

Fax 817.272.3255

210 University Hall

**601 S Nedderman Dr**

Box 19617, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Art + Art History

##### Professor

**Robert Hower**

**Benito Huerta Lozano**

**David Keens**

**Kenda North**

**Nancy Palmeri**

**Mary Vaccaro**

##### Associate Professor

**Lisa Graham**

**Marilyn Jolly**

**R Leighton McWilliams**

**Andrew Ortiz**

**Jack Plummer**

**Barton Weiss**

**Nicholas Wood**

##### Assistant Professor

**Amanda Alexander**

**Melia Belli**

**Zenas Ikeda**

**Darryl Lauster**

**Benjamin Lima**

**Dwain Ya'Ke Smith**

**Salvatore Terrasi**

##### Special Member

**Bryan Florentin**

**Sedrick Huckaby**

**Stephen Laphisophon**

## Communication

### Associate Professor

Thomas Christie  
Andrew Clark  
Tom Ingram  
Chyng-Yang Jang  
Charla Markham Shaw  
Eronini Megwa

### Assistant Professor

Karishma Chatterjee  
Dustin Harp  
Erika Pribanic-Smith  
Chunke Su  
Mark Tremayne  
Shelley Wigley

### Senior Lecturer

Brian Horton

## Criminology & Criminal Justice

### Professor

Alejandro Del Carmen

### Associate Professor

Robert Bing

### Assistant Professor

Jaya Davis  
Seokjin Jeong  
Tony Love  
John Rodriguez

### Visiting Assistant Professor

Christopher Copeland

### Senior Lecturer

Randall Butler  
Karel Carpenter  
Rhonda Dobbs  
Patricia Eddings  
Kristy Smith  
Royce West

## English

Bruce Krajewski

### Professor

Stacy Alaimo  
Timothy Morris  
Kenneth Roemer

### Associate Professor

Luanne Frank  
Kevin Gustafson  
Desiree Henderson  
Penelope Ingram  
Neill Matheson  
Kevin Porter  
Timothy Richardson  
Johanna Smith  
Jacqueline Stodnick  
Amy Tigner

### Assistant Professor

William Arce  
James Warren  
Yuejiao Zhang

## History

Paul Conrad  
David Lafevor  
Scott Palmer

**Professor**

Thomas Adam  
Imre Demhardt  
Robert Fairbanks  
Sam Haynes  
Donald Kyle  
Christopher Morris  
Stanley Palmer  
Jerry Rodnitzky

**Associate Professor**

Elisabeth Cawthon  
Stephanie Cole  
William Dulaney  
John Garrigus  
Joyce Goldberg  
Alusine Jalloh  
Stephen Maizlish  
David Narrett  
Steven Reinhardt  
Gerald Saxon  
Roberto Trevino

**Assistant Professor**

Patryk Babiracki  
Oliver Bateman  
Sarah Rose  
Cristina Salinas  
Kenyon Zimmer

**Professor Emeritus**

George Green  
Kenneth Philp  
Douglas Richmond

**Linguistics**

Suwon Yoon

**Professor**

Colleen Fitzgerald  
David Silva

**Associate Professor**

Laurel Stvan

**Assistant Professor**

Cynthia Kilpatrick  
Joseph Sabbagh  
Jeffrey Witzel

**Professor Emeritus**

Jerold Edmondson

**Senior Lecturer**

Naoko Witzel

**Military Science**

Lora Rimmer

**Modern Languages**

**Associate Professor**

Jinny Choi  
Christopher Conway  
Raymond Elliott  
Aimee Israel-Pelletier

Lana Rings  
Ignacio Ruiz-Perez  
Antoinette Sol  
Kimberly van Noort

**Assistant Professor**

Amy Austin  
Sonia Kania  
Christopher Stewart  
Sonja Watson

**Music**

Sarah Frisof  
David Grogan

**Department Chair**

Rick Bogard

**Professor**

John Burton  
Linton Powell  
Jing Tam

**Associate Professor**

Daniel Cavanagh  
George Chave  
Sergio Espinosa  
Graham Hunt  
Timothy Ishii  
Carol Jessup  
Karen Kenaston-French  
Soo Kim  
Diane Lange  
John Solomons  
Douglas Stotter  
Michael Varner  
Martha Walvoord

**Assistant Professor**

Sean Atkinson  
Young-Hyun Cho  
Clifton Evans  
Christopher Pool

**Philosophy and Humanities**

**Professor**

Susan Hekman

**Associate Professor**

Lewis Baker  
Keith Burgess-Jackson  
Charles Chiasson  
Charles Nussbaum  
Harry Reeder  
Kenneth Williford

**Assistant Professor**

Miriam Byrd

**Political Science**

**Senior Vice Provost**

Michael Moore

**Professor**

Mark Cichock  
Victoria Farrar-Myers  
Jose Gutierrez  
Susan Hekman  
Joseph Ignagni  
Thomas Marshall

**Dale Story**

**Associate Professor**

**Brent Boyea**  
**Jill Clark**  
**Rebecca Deen**  
**Allan Saxe**

**Assistant Professor**

**Aytem Bayram**  
**Heidi Hardt**  
**Brent Sasley**  
**Daniel Sledge**

**Associate Adjunct Professor**

**Thomas Little**

**Professor Emeritus**

**Allan Butcher**

**Senior Lecturer**

**Larry Carter**

**Sociology and Anthropology**

**Professor**

**Ben Agger**  
**Beth Anne Shelton**  
**Shelley Smith**  
**Robert Young**

**Associate Professor**

**Susan Baker**  
**Dana Dunn**  
**Heather Jacobson**  
**Robert Kunovich**  
**Linda Rouse**  
**Christian Zloliniski**

**Assistant Professor**

**Krystal Beamon**  
**Naomi Cleghorn**  
**Chunping Han**  
**Ritu Khanduri**  
**Jason Shelton**  
**Amy Speier**

**Professor Emeritus**

**Joseph Bastien**  
**Raymond Eve**

**Lecturer**

**Josephine Ryan**

**Theatre Arts**

**Professor**

**Andrew Gaupp**  
**Kim Lafontaine**

**Associate Professor**

**Joe Chapa**  
**Joseph Kongevick**  
**Dennis Maher**

---

**Graduate Advisors**

**Amy Austin**

*Modern Languages, French Certificate*  
*Modern Languages, M.A. (Spanish or French Concentration)*  
*Modern Languages, Non-Degree Seeking*

*Modern Languages, Spanish Certificate*

**Thomas Christie**  
*Communications, M.A.*

**Stephanie Cole**  
*History, M.A.*

**Rhonda Dobbs**  
*Criminology and Criminal Justice, M.A.*

**Clifton Evans**  
*Music Performance, M.M. Thesis*  
*Music, M.M.*

**John Garrigus**  
*Transatlantic History, Ph.D.*

**Heather Jacobson**  
*Sociology, M.A. Thesis*

**Cynthia Kilpatrick**  
*Teaching English to Speakers of Other Languages, M.A.*

**Nancy Palmeri**  
*Art, M.F.A.*

**John Rodriguez**  
*Criminology and Criminal Justice, M.A.*

**Josephine Ryan**  
*Anthropology, M.A.*

**Joseph Sabbagh**  
*Linguistics, M.A.*

**Brent Sasley**  
*Political Science, M.A.*

**Amy Tigner**  
*English, M.A.*  
*English, Non-Degree Seeking*  
*English, Ph.D.*

**Jeffrey Witzel**  
*Linguistics, Ph.D.*

**Kenyon Zimmer**  
*Transatlantic History, B.A. to Ph.D.*  
*Transatlantic History, Ph.D.*

## **Mission and Philosophy**

### **History and Overview**

### **Scholastic Activity and Research Interests of the Faculty**

### **Special Programs and Opportunities**

- **Lecture Series, Seminars and Conferences**
- **Publications**
- **Centers**
- **Other Resources**

### **Programs**

## **Mission and Philosophy**

The mission of the College of Liberal Arts is to provide a learning community wherein students are provided both broad-based and specialized education and to vitalize the educational process by creating and transmitting knowledge through research, scholarship and creative activity.

The college is characterized by a diversity of intellectual styles and interests. Departments and

programs cluster into social sciences, humanities and fine arts. Liberal Arts disciplines address the rich meanings of human experience and expression and liberate the imagination by producing knowledge and creating beauty.

The faculty and administration of the college address the traditional objectives of liberal arts in the University: 1) to develop the tools for analysis, appreciation and communication; for written and oral expression; for comprehension, interpretation, and analysis of textual material; for analytic reasoning and scientific method; and for appreciation of aesthetic experience; 2) to prepare students for a range of careers in academia and public and private sector organizations. Graduates of the college contribute to the region, the state and the nation as college and university professors, elementary and secondary teachers, legal professionals, in government agencies, social services, international business and industry, media and advertising, health and recreation, and cultural and entertainment industries; and 3) to promote understanding and critical evaluation of the cultural milieu the attitudes and the ideas that shape institutions and strategies in societies.

Accomplishing these objectives culminates in students reaping the creative, utilitarian and life enriching benefits of a liberal arts education.

## History and Overview

The University of Texas at Arlington's College of Liberal Arts acquired its first graduate degrees in 1968, with the establishment of M.A. programs in English and History. Since that time, the number of M.A. programs offered has expanded to 13. In 1974, the college established its first Ph.D. level program, Humanities. The Humanities Program was reorganized in 1997 and replaced by three new Ph.D. level programs in English (Literature and Rhetoric/Composition tracks), History (transatlantic) and Linguistics. A joint Ph.D. in Philosophy with the University of North Texas was approved in 2005.

## Scholastic Activity and Research Interests of the Faculty

The faculty in the College of Liberal Arts excel in their roles as educators, creative scholars and researchers. Eight faculty members have won the Academy of Distinguished Teachers Award, and eight faculty are Chancellor's Teaching Award recipients. Two of our faculty have won the prestigious Piper Award from the UT System. Several faculty from a variety of departments in the college also have won the University Research Achievement Award. Numerous faculty have received recognition for their published scholarship, including Pulitzer Prize nominations and the *Choice* magazine Outstanding Academic Book Award. The Jenkins and Virginia Garrett Endowed Chair in Greater Southwestern Studies and the History of Cartography was created in 1995 and is currently held by David Buisseret, Ph.D. Five faculty from the College of Liberal Arts have been selected to be members of the Academy of Distinguished Scholars.

The scholarly activities and research of the faculty cover a range of areas represented within the 13 disciplines in the college. History faculty research interests center on transatlantic broadly defined, and research specializations of faculty include southern, western and southwestern history, frontier development, women and gender, urban and labor and public history. English faculty research strengths lie in the areas of American, British and comparative literatures; and rhetoric, composition and criticism. Linguistics faculty specialize in field linguistics. Numerous faculty throughout the college also conduct research on gender and women's issues. Anthropology faculty members recently became the first foreign archaeological team to excavate in Albania in more than 50 years.

## Special Programs and Opportunities

The College of Liberal Arts provides a number of special programs and opportunities for graduate students. College lecture series and seminars, conferences, publications, academic centers, library collections and an art gallery provide a mosaic of events and resources that enrich the university community.

### Lecture Series, Seminars and Conferences:

- Each year the English Department sponsors the Hermann Lecture series, which brings

scholars from UT Arlington and other universities together for discussions and master classes on an issue of general theoretical interest.

- The History Department presents the Walter Prescott Webb Memorial Lectures each March. Nationally prominent speakers make presentations on an annual topic, followed by a dinner in the University Center and a keynote address.
- Graduate students in Linguistics sponsor a Linguistics Conference each year. This conference provides an opportunity for students to begin their professional careers by organizing the sessions, reviewing paper abstracts and presenting their own research.
- The Women's Studies Program organizes an annual, month-long Women's History Month Lecture Series. Exhibits and film/video presentations also are included as part of the events scheduled during the month of April. The Women's Studies Brown Bag Colloquium is another forum for scholars, primarily UT Arlington faculty, to share their research with the University community.
- The Criminal Justice and Criminology Program sponsors a Brown Bag Lecture Series every spring semester, and students have the opportunity to receive credit for practicums.
- The Philosophy Lecture Series is sponsored by the Department of Philosophy and Humanities, together with the Philosophy Club at UT Arlington. Each semester, a philosopher of national or international reputation from another university is invited to the UT Arlington campus to lecture on a topic of current philosophical interest.
- The Department of Political Science hosts the annual Haggard Lectures, bringing in nationally and internationally known scholars in the field.
- Each spring the Department of Sociology and Anthropology hosts the annual Termini Lecture Series in Anthropology, which brings a nationally prominent anthropologist to campus to speak on topics of general interest. The speaker typically presents a public lecture and a more informal presentation, primarily for the benefit of students, on a related topic.
- The Department of History hosts an annual student conference for the graduate students.

### Publications

- The History Department publishes an annual volume comprised of Webb Lecture Series papers.
- The English Department houses the online literary review "Znine" and the online journal "Pretext."
- The Center for Theory houses the online journal "Fast Capitalism."
- Individual departments/programs publish newsletters which provide news and information about and for students, faculty and alumni.

### Centers

The College of Liberal Arts houses numerous centers designed to promote scholarship, research and teaching. These centers organize conferences, lecture series and workshops and provide a conduit for making faculty expertise available to the community. College of Liberal Arts centers are listed below and described in the Facilities for Advanced Studies and Research section of this catalog.

The Center for Criminal Justice Research and Training  
The Center for Greater Southwestern Studies and the History of Cartography  
The Center for Mexican American Studies  
The Center for Post-Soviet and East European Studies  
The Center for Social Research  
The Center for Theory  
The English Language Institute  
The International Linguistics Center  
The Language Acquisition Center



## The Women and Minorities Research and Resource Center

### Other Resources

- In support of the history M.A. and Ph.D. programs, the UT Arlington Library Special Collections houses the Jenkins Garrett Library of Texana and Mexican War historical material and the Cartographic History Library. In addition, Special Collections has material on UT Arlington's history since 1895, the history of organized labor in Texas and the Southwest, and Yucatan and Honduran archival materials.
- The Gallery at UT Arlington presents a full program of major exhibitions in its 4,000-square-foot gallery, including lectures, symposia, screenings and publications. The Gallery's program demonstrates the complementary roles of visual and verbal literacy.
- The Department of Modern Languages has a Language Laboratory which produces innovative software in language learning.
- The Department of Music offers laboratory facilities and the Fine Arts Library contains an extensive collection of recordings and publications relating to musical performance and theory.
- The Anthropology Program has a biological anthropology lab, and offers an archaeological field school every summer where students can gain academic credit for learning and applying archaeological field methods.
- Numerous student organizations exist on campus to provide students with the opportunity to interact with peers in their disciplines. These student groups include interdisciplinary organizations for graduate students interested in Medieval Studies and Rhetoric; and honor societies for Anthropology, Communication, Criminal Justice, English, History, Political Science, and Sociology, as well as specialized interest groups.
- Student awards, scholarships and teaching and research assistantships are available in many College of Liberal Arts departments and programs. Each spring the History Department awards an outstanding graduate student the Wolfskill Prize, a cash award and plaque representing superior attainment in history studies. The English Language Institute, a part of the Program in Linguistics, provides graduate teaching assistantships. A McNair Fellowship is sponsored by the Office of the Dean.
- The Dean of College also awards funds for research travel and for travel to conferences for presentation of original research.

### Programs

The College of Liberal Arts offers the following graduate degree programs:

Anthropology, M.A.  
Communication, M.A.  
Criminology and Criminal Justice, M.A.  
English, M.A., Ph.D.  
History, M.A.; Transatlantic History, Ph.D.  
Humanities, M.A.  
Linguistics, M.A., Ph.D.; TESOL, M.A.  
Modern Languages (French and Spanish), M.A.  
Music Education, M.M.  
Philosophy, joint Ph.D. with UNT.  
Political Science, M.A.; Public Administration, M.PA.  
Sociology, M.A.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[School of Architecture](#)[College of Business](#)[College of Education and  
Health Professions](#)[College of Engineering](#)[College of Liberal Arts](#)[College of Nursing](#)[Nursing - MSN, DNP, &  
PhD](#)[College of Science](#)[School of Social Work](#)[School of Urban and Public  
Affairs](#)[Admissions Requirements &  
Procedures](#)[General Information &  
Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## College of Nursing

### Dean **Elizabeth Poster**

Associate Dean **Jennifer Gray**  
Associate Dean **Mary Schira**  
Associate Dean **Michael Young**

Web [www.uta.edu/nursing/](http://www.uta.edu/nursing/)

Email [nursing@uta.edu](mailto:nursing@uta.edu)

Phone 817.272.2776

Fax 817.272.5006

669 Pickard Hall  
**411 S Nedderman Dr**  
Box 19407, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Nursing

**Associate Dean**  
**Mary Schira**

#### Clinical Assistant Professor

**Susan Baxley**  
**Deborah Behan**  
**Susan Carlson**  
**Daisha Cipher**  
**Chad Collom**  
**Jeannette Crenshaw**  
**Elizabeth Ellis**  
**Beverly Ewing**  
**Christopher Fowler**  
**John Gonzalez**  
**Linda Grande**  
**Nancy Handy**  
**Valerie Hart**  
**Lauri John**  
**Carol Lieser**  
**Jacqueline Michael**  
**Mary Jo Perley**  
**Cynthia Plonien**  
**Lisa Taylor**  
**Phyllis Wood**

#### Clinical Associate Professor

**Phyllis Adams**  
**Joy Baker**

**Interim Dean, College of Nursing; Associate Dean, Dept. MSN Administration, Education, and PhD Programs; Professor**  
**Jennifer Gray**

**Interim Director, Doctor of Nursing Practice, Clinical Assistant Professor**  
**Sharolyn Dihigo**

**Interim Director, MSN Education Program; Clinical Instructor**  
**Marie Lindley**

**Professor**  
**Mary Lou Bond**  
**Carolyn Cason**  
**Judy Leflore**  
**Mary Mancini**

**Associate Professor**  
**Cheryl Anderson**  
**Donelle Barnes**  
**Maureen Courtney**  
**Barbara Raudonis**  
**Marilee Schmelzer**

**Assistant Professor**  
**Maxine Adegbola**  
**Mindi Anderson**  
**Mary Cazzell**  
**Kathryn Daniel**  
**Ronda Mintz-Binder**

**Associate Adjunct Professor**  
**Lorraine Hegstad**

**Clinical Professor**  
**Diane Snow**

**Assistant Clinical Professor**  
**Patricia Thomas**

**Clinical Instructor**  
**Deborah Boger**  
**Essence Carter Griffin**  
**Sara Duvall**  
**Paula Gillman**  
**Marcia Harris**  
**Mary Haskew**  
**Kellie Kahveci**  
**Sandra Laird**  
**Sayda Major**  
**Bethany Mcclean**  
**Howard Mckay**  
**Lindy Moake**  
**Jodie Moore**  
**Sara Moore**  
**Patti Parker**  
**Vicki Patrick**  
**Dixie Stevenson**  
**Kimberly Wright**  
**Nancy Wyrick**

---

## Graduate Advisors

**Felicia Chamberlain**  
*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Accelerated Online Nursing Admin., M.S.N.*

**Jennifer Gray**  
*Nursing Administration, B.S.N. to Ph.D.*  
*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

**Lauri John**  
*Nursing Administration, B.S.N. to Ph.D.*

*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

**Marie Lindley**

*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Nursing Education, M.S.N.*

**Cynthia Plonien**

*Accelerated Online Nursing Admin., M.S.N.*  
*Nursing Admin. Executive, M.S.N. Non Thesis*

**Mary Schira**

*Doctor of Nursing Practice, D.N.P.*  
*Nurse Practitioner, Post Master Cert-Family*  
*Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care*  
*Nurse Practitioner, Post Masters Cert, Neonatal*  
*Nurse Practitioner, Post Masters Cert, Pediatric Acute Care*  
*Nurse Practitioner, Post Masters Cert, Pediatric Primary Care*

**Mission and Philosophy**

**History and Overview**

**Accreditation**

**Scholastic Activities and Research Interests of the Faculty**

**Special Programs and Opportunities**

- **Smart Hospital™**
- **Learning Resources Center**
- **Center for Nursing Research**
- **Center for Hispanic Studies in Nursing and Health**
- **Rural Health Outreach Program**
- **Center for Continuing Nursing Education**
- **Programs**
- **Major Areas of Study for Master's of Science in Nursing (MSN)**
- **PhD in Nursing**
- **Doctor of Nursing Practice (DNP)**

**Mission and Philosophy**

The College of Nursing is an integral component of The University of Texas at Arlington and subscribes to the mission of the University. The College of Nursing prepares quality nurse health care providers through excellence in education, scholarship and service. The undergraduate and graduate academic programs prepare individuals for professional nursing roles and for collaboration with other professionals and consumers in the delivery of holistic health care.

The faculty believes learning is a continuous lifelong process and a personal responsibility. Students must be actively involved in the learning process to acquire clinical proficiency and to be socialized into professional roles. Learning experiences are implemented to achieve sequence, continuity, and synthesis of knowledge and expertise as defined by the educational outcomes. Teaching and learning are dynamic processes involving curriculum evaluation and revision based on research evidence, the needs of a multicultural society, and the changing health care system. The educational process facilitates the development of each person's potential and promotes cultural competence and assimilation of ethical principles.

Faculty and students foster an educational climate of mutual respect, honesty, intellectual inquiry, creativity, and effective communication. We contribute to the development of our profession

through the conduct of research and the dissemination and application of evidence-based knowledge. Faculty and students provide service to the community through clinical practice and leadership.

Undergraduate nursing education builds on a foundation of studies in the sciences, humanities, and arts. The baccalaureate program prepares competent, self-directed generalist nurses (Registered Nurses) who can assume increasing responsibility and leadership in the delivery of evidence-based nursing care.

Master's education builds on a foundation of undergraduate nursing education and provides specialty practice with an expanded theoretical and empirical knowledge base. The Master of Science in Nursing programs prepares Registered Nurses for advanced functional roles that require increased accountability, expertise, and leadership. Graduates are prepared to provide evidence-based health care in collaboration with other health care providers and consumers.

Doctoral education develops and advances empirical knowledge to promote evidence-based practice in the discipline of nursing. Graduates have a background to develop theories and conduct research with vulnerable populations and to assume academic, research, and leadership roles. The doctorate provides a basis for future research programs and other scholarly activities.

Lifelong learning is the responsibility of each professional nurse. Continuing education programs developed by the College of Nursing are sensitive to the influences of a changing society and respond to the continuing education needs of professional nurses in Texas.

## History and Overview

The UT Arlington College of Nursing was established in 1971 as the U.T. System College of Nursing in Fort Worth and was housed in John Peter Smith Hospital. The first baccalaureate class enrolled in fall of 1972; the graduate program (MSN) began in 1975. In 1976, the school became an academic unit of UT Arlington, moving to the campus in 1977.

The Undergraduate Program consists of the BSN and the RN to BSN programs. In addition to the Arlington campus, the RN to BSN program is offered via distance education strategies. The Graduate Program offers a Master of Science in Nursing (MSN) with preparation as a nurse practitioner in the areas of Acute Care Adult Gerontology --(1996), Acute Care Pediatric (2005), Adult Gerontology Primary Care (previously Adult and Gerontology) (2013), Family (1975), Gerontology (1984), Neonatal (2008), Primary Care Pediatric (1985) and Psychiatric-Mental Health (1995). Post-master's certificates are available in all the above nurse practitioner specialties. In addition, the UT Arlington MSN Program offers preparation in Nursing Administration (1982) and Nursing Education (2008). Nursing Administration is also offered online through the UT Arlington Academic Partnership program. A dual degree of MSN (administration major) and Masters of Business Administration (MBA) was offered in 1999 and a dual degree of MSN and Masters of Science in Health Care Administration was offered in 2001. A joint degree of MSN and Masters in Public Health (MPH) was offered with University of North Texas Health Science in Center in 2007. Certificates are offered in: Nursing Education (2001) and Advanced Nurse Educator Role (2001). A PhD in Nursing was approved in April 2003 with classes beginning in Fall 2003. A BSN-to-PhD entry option was approved in 2005, with classes beginning in Fall 2006. A Doctor of Nursing Practice (DNP) began in Fall 2009.

## Accreditation

The Master of Science in Nursing and Doctor of Nursing Practice Programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The CCNE address is One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120; Phone is (202) 887-6791 and fax is (202) 887-8476; and Website: [www.aacn.nche.edu/accreditation](http://www.aacn.nche.edu/accreditation). There are no accrediting agencies for PhD in Nursing programs.

## Scholastic Activities and Research Interests of the Faculty

The research programs of the College of Nursing faculty are diverse. A sampling of their areas of study includes Genomics (Dr. Barbara Raudonis); Hispanic health care (Dr. Donelle Barnes and Dr. Susan Baxley); effects of colon cleansing/ gastroenterology (Dr. Marilee Schmelzer); nursing care outcomes (Dr. Reni Courtney); leadership in nursing education (Dr. Ronda Mintz-Binder); chemical dependency and abuse (Dr. Cheryl Anderson and Dr. Diane Snow); nurses in international settings (Dr. Jennifer Gray); sickle cell disease (Dr. Phyllis Adams and Dr. Maxine Adegbola); care of the elderly (Dr. Barbara Raudonis and Dr. Kathryn Daniel); oncology (Dr. Laurie Johns); simulation instruction (Dr. Mindi Anderson and Dr. Judy LeFlore); neonatology, and very low birth weight (Dr. Judy LeFlore).

## Special Programs and Opportunities

### Smart Hospital™

Interim Assistant Dean, Dr. Judy LeFlore

The Smart Hospital™ is a simulated hospital environment complete with state-of-the-science equipment and furnishings. In this facility, students interact with and provide care to a full array of simulated patients who occupy the Emergency Department, ICU, Labor and Delivery suite, pediatric unit, Neonatal ICU, adult medical/surgical beds and the resuscitation room for large team training. Students learn utilizing simulation technology including full body interactive patient simulators, computerized scenario-based programs and individual trainers for specific skills.

### Learning Resources Center

Executive Assistant to the Dean: Lalita Thompson

The mission of the Center is to provide both undergraduate and graduate students support to develop, refine, and apply knowledge in the clinical practice of skills. Computer labs are available for student use. Faculty members are provided resources to support classroom instruction, clinical learning activities, and scholarly endeavors.

### Center for Nursing Research

Associate Dean: Dr. Michael Young

Scholarship is an essential component of the professional role in the College of Nursing. The Center provides support services to faculty and students: identifying funding sources; developing competitive proposals; writing grant applications; retrieving literature; collecting, entering and analyzing data; and disseminating research results and other scholarly products. Collaborative relationships for research with Metroplex health care agencies are in place.

### Center for Hispanic Studies in Nursing and Health

Co-Directors: Dr. Wendy Barr and Dr. Mary Lou Bond

The Center is dedicated to fostering an understanding between health care professionals and people of Hispanic origin for the purpose of increasing understanding of health and healing through research of individual experience, cultural meanings, and the structure of institutions as important variables influencing health outcomes. The Center is also committed to the provision of educational programs and services which will assist health care providers to gain the necessary knowledge and skills to deliver increasingly culturally sensitive and competent care. The Center promotes interdisciplinary and interuniversity collaboration as a strategy for development of resources to solve or deal with bicultural issues facing health care professionals.

### Rural Health Outreach Program

Director: Sylvia Rawlings

The purpose of the Center is to provide appropriate, affordable, accessible continuing education to

the nursing staffs of acute care and psychiatric hospitals, long term care facilities, home health agencies, and other health care facilities in the rural communities of North Central Texas.

### Center for Continuing Nursing Education

The mission of this Center is to provide quality continuing nursing education for the improvement of nursing practice and health care in North Texas. The program strives to be a regional center for the advancement of professional continuing nursing education and to meet the diverse needs of nurses in most every clinical specialty and all levels of functional roles.

### Programs

The Graduate Nursing Program is comprised of two departments – The Department of MSN Administration, Education, and PhD Programs and Research and the Department of Advanced Practice Nursing. The Department of Nursing Administration, Education and Research is made up of the MSN in Nursing Administration (including the dual MSN/MBA and MSN/HCAD degrees and the joint MSN/MPH programs), the MSN in Nursing Education and the PhD in Nursing Programs. The Department of Advanced Practice Nursing is made up of all Nurse Practitioner and Post Master's Nurse Practitioner Certificate Programs and the DNP Program.

### Major Areas of Study for Master's of Science in Nursing (MSN)

- **Nursing Administration**
- **Nursing Education**
- **Nurse Practitioner Programs**
  - Acute Care Adult Gerontology Nursing
  - Acute Care Pediatric Nursing
  - Adult Gerontology Nursing
  - Family Nursing
  - Neonatal Nursing
  - Primary Care Pediatric Nursing
  - Family Psychiatric Mental Health Nursing

### PhD in Nursing

### Doctor of Nursing Practice (DNP)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[Biology](#)

[Chemistry &  
Biochemistry](#)

[Earth and Environmental  
Sciences](#)

[Interdisciplinary Science](#)

[Mathematics](#)

[Physics](#)

[Psychology](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## College of Science

**Dean Pamela Jansma**

**Dean Morteza Khaledi**

**Associate Dean Minerva Cordero-Epperson**

**Associate Dean James Grover**

**Associate Dean Raymond Jackson**

Web [www.uta.edu/cos/](http://www.uta.edu/cos/)

Email [norris@uta.edu](mailto:norris@uta.edu)

Phone 817.272.3491

Fax 817.272.3511

206 Life Science Building

**501 S Nedderman Dr**

Box 19047, Arlington, Texas 76019, USA

## Graduate Faculty

### Biology

**Todd Castoe**  
**Woo-Suk Chang**  
**Allan Clay Clark**  
**Jeffery Demuth**  
**John Fondon**  
**Matthew Fujita**  
**Jason Kubinak**  
**Maeli Melotto**  
**Mark Pellegrino**  
**Jorge Rodrigues**  
**Eric Smith**  
**Matthew Walsh**  
**Sen Xu**  
**Kai Zhu**

### Professor

**Jonathan Campbell**  
**Paul Chippindale**  
**Thomas Chrzanowski**  
**Daniel Formanowicz**  
**Bernard Frye**  
**James Grover**  
**Robert McMahon**  
**James Robinson**

### Associate Professor

**David Bernard**  
**Esther Betran**  
**Laura Gough**  
**Sophia Passy**



**Michael Roner**

**Assistant Professor**

**Shawn Christensen**  
**Cedric Feschotte**  
**Julian Hurdle**  
**Laura Mydlarz**  
**Andre Pires Da Silva**  
**Ellen Pritham**

**Chemistry & Biochemistry**

**Morteza Khaledi**  
**Robin Macaluso**

**Professor**

**Daniel Armstrong**  
**Purnendu Dasgupta**  
**Rasika Dias**  
**Ronald Eisenbaumer**  
**Carl Lovely**  
**Frederick Macdonnell**  
**Krishnan Rajeshwar**  
**Richard Timmons**

**Associate Professor**

**Jongyun Heo**  
**Peter Kroll**  
**Subhrangsu Mandal**  
**Kevin Schug**

**Assistant Professor**

**Alejandro Bugarin**  
**Saiful Chowdhury**  
**Frank Foss**  
**Junha Jeon**  
**Kayunta Johnson-Winters**  
**Roshan Perera**  
**Bradley Pierce**

**Professor Emeritus**

**Martin Pomerantz**  
**Zoltan Schelly**

**Earth and Environmental Sciences**

**Professor**

**Asish Basu**  
**Glen Mattioli**  
**Merlynd Nestell**  
**John Wickham**

**Associate Professor**

**Qinhong Hu**  
**Andrew Hunt**

**Assistant Professor**

**Majie Fan**  
**Elizabeth Griffith**  
**William Griffith**  
**Arne Winguth**

**Adjunct Professor**

**Galina Nestell**

**Associate Adjunct Professor**

**Larry Standlee**

**Assistant Adjunct Professor**

**Harold Rowe**

**Interdisciplinary Science**

**Director**

Gregory Hale

**Mathematics**

Suvra Pal

Jonghyun Yun

**Professor**

Tuncay Aktosun

Benito Chen

Minerva Cordero-Epperson

Chien-Pai Han

David Jorgensen

Hristo Kojouharov

Andrzej Korzeniowski

Ren-Cang Li

Guojun Liao

Chaoqun Liu

Yue Liu

Merlynd Nestell

Jianzhong Su

Shan Sun-Mitchell

Michaela Vancliff

**Associate Professor**

Gaik Ambartsoumian

James Epperson

Ruth Gornet

Dimitar Grantcharov

Doyle Hawkins

Theresa Jorgensen

Barbara Shipman

**Assistant Professor**

Yan Li

**Physics**

Jonathan Asaadi

Matthew Benacquista

Haleh Hadavand

Fredrick Jenet

Mingwu Jin

Benjamin Jones

Soma Mukherjee

David Nygren

Malik Rakhmanov

Joseph Romano

**Professor**

Andrew Brandt

Manfred Cuntz

Kaushik De

John Fry

Ali Koymen

Ping Liu

Ramon Lopez

Zdzislaw Musielak

Asok Ray

Roy Rubins

Suresh Sharma

Alexander Weiss

Andrew White

Jaehoon Yu

Qiming Zhang

**Associate Professor**

Wei Chen

Nail Fazleev

**Assistant Professor**

Yue Deng

**Amir Farbin**  
**Muhammad Huda**  
**Christopher Jackson**  
**Samarendra Mohanty**  
**Joseph Ngai**  
**Sangwook Park**

### **Psychology**

**Angela Liegey-Dougall**  
**Qing Lin**  
**Kelsey Medeiros**  
**Pablo Mora**  
**Craig Nagoshi**  
**Heekyeong Park**  
**Amber Schroeder**  
**Shannon Scielzo**  
**Karen Twohey**

### **Assistant Professor in Practice**

**Nicolette Lopez**

### **Professor**

**Robert Gatchel**  
**William Ickes**  
**Daniel Levine**  
**Roger Mellgren**  
**Paul Paulus**

### **Associate Professor**

**Perry Fuchs**  
**Lauri Jensen-Campbell**  
**Jared Kenworthy**  
**Martha Mann**  
**Yuan Peng**

### **Assistant Professor**

**Jeffrey Gagne**  
**Linda Perrotti**

### **Professor Emeritus**

**Verne Cox**

---

## **Graduate Advisors**

### **Gloria Burlingham**

*Biology, M.S.*  
*Biology, Non-Degree Seeking*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Paul Chippindale**

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Shawn Christensen**

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Stacey Cody**

*Physics and Applied Physics, B.S. to Ph.D.*  
*Physics and Applied Physics, Ph.D.*

### **James Epperson**

*Mathematics, M.A.*

### **Gregory Hale**

*Interdisciplinary Science, M.A.*

**Andrew Hunt**

*Earth and Environmental Science / Geology, M.S.*  
*Earth and Environmental Science, Ph.D.*

**Jared Kenworthy**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*

**Hristo Kojouharov**

*Applied Statistics Certificate*  
*Mathematical Sciences, Mathematics, Ph.D.*  
*Mathematics (General Mathematics), B.S. to Ph.D.*  
*Mathematics (General Mathematics), M.S.*  
*Mathematics (General Mathematics), Ph.D.*  
*Mathematics (General Statistics), B.S. to Ph.D.*  
*Mathematics (General Statistics), M.S.*  
*Mathematics (General Statistics), Ph.D.*

**Peter Kroll**

*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, Ph.D.*

**Maria Levings**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**Robin Macaluso**

*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, M.S. Thesis Substitute*  
*Chemistry, Non-Degree Seeking*  
*Chemistry, Ph.D.*

**Paul Paulus**

*Psychology, Industrial and Organizational, M.S.*

**Yuan Peng**

*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*

**Michael Roner**

*Biology, M.S.*  
*Quantitative Biology, B.S. to Ph.D.*  
*Quantitative Biology, Ph.D.*

**Sarah Watson**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**John Wickham**

*Earth and Environmental Science / Geology, M.S.*

**Qiming Zhang**

*Physics, M.S.*

**Mission and Philosophy**

- **Overview**

**Scholastic Activity and Research Interests of the Faculty**

- **Biology**
- **Chemistry and Biochemistry**

- **Earth and Environmental Sciences**
- **Mathematics**
- **Physics**
- **Psychology**
- **Science Education**

#### **Programs**

- **Master of Science Degrees**
- **Master of Arts Degree**
- **Doctoral Degrees**

## **Mission and Philosophy**

The College of Science graduate programs are committed to excellence in graduate education and research and contribute, along with other institutions in this country and throughout the world, to the expansion of scientific knowledge. Graduates of our programs are highly trained and educated scientists who will be able to contribute to the economic and social well-being of our state and nation.

### **Overview**

With outstanding departments of Biology, Chemistry and Biochemistry, Earth and Environmental Sciences, Mathematics, Physics and Psychology, the College of Science offers comprehensive graduate studies with our world class faculty and research programs. In addition to providing our students with strong core training in the physical and life sciences, we have a graduate program in Materials Science and Engineering and offer specialized Masters degrees for educators to expand their core science training. Interdisciplinary programs and Research Centers provide students with opportunities to span disciplines, and student research activities are complemented by excellent research facilities and state-of-the-art instrumentation. The College and Departments host a series of seminars to further expose our students to cutting edge science developments.

Master's degrees are offered in all of our departments, and we award Ph.D. degrees in Quantitative Biology, Applied Chemistry, Environmental and Earth Sciences, Mathematical Sciences, Mathematics, Applied Physics, Experimental Psychology, and Materials Science and Engineering. For application and entrance requirements, or more on our graduate programs, please call us or visit our Web site at [www.uta.edu/cos](http://www.uta.edu/cos).

## **Scholastic Activity and Research Interests of the Faculty**

### **Biology**

The Department of Biology has a wide array of research programs ranging from molecular through ecosystem levels of integration. The program boasts strengths in ecology and systematics, evolution, microbiology, genomics, and molecular biology, and has active funding from a variety of private and public agencies. The department also hosts centers for genomics, biological macrofouling, electron microscopy and a collection of vertebrates. The research program emphasizes quantitative aspects of biology and provides students with strong training in statistics and experimental design.

### **Chemistry and Biochemistry**

Research programs include synthetic work on natural products, medically active agents, novel ligands, new catalysts, luminescent materials, photocatalysts, supramolecular and metallocsupramolecular compounds, molecular magnetism, molecular recognition, stabilization of reactive intermediates, solar energy conversion and electrically conducting polymers. Biochemical research includes studies of enzymology and molecular biology of bacterial metabolism, and studies on problems involved in anticancer therapy. Physical, analytical and electrochemical research includes studies of colloids and surfaces, electrode modification through thin film surface deposition, MALDI mass spectrometry and characterization of the electrical properties of polymers

and other materials. Theoretical studies involve both a major computational program applying molecular orbital theory to a variety of problems.

## Earth and Environmental Sciences

Department research has a strong orientation toward the application of geochemistry, oceanography, geophysics and paleobiology to earth resources and the environment. Current research interests include analysis and modeling of geologic deformational structures, biostratigraphy of accreted terranes of the Pacific Northwest and the middle Permian of West Texas, sedimentology, paleoclimatology, hydrology, fluvial geomorphology, environmental health, and plate tectonics.

## Mathematics

**Algebra:** homological theory of commutative Noetherian rings; noncommutative algebra using geometric methods: symbolic computations.

**Differential Equations, Integral Equations and Dynamical Systems:** geometric study of integrable Hamiltonian systems; stability and instability of solitary waves; nonlinear dispersive waves; free boundary problems related to phase transition and multi-fluid flow; stochastic differential equations; control theory.

**Cooperative Game Theory:** semivalues, least square values, properties, potentials and computation; the inverse problem.

**Geometry:** birational algebraic geometry and Mori theory; differential geometry and inverse spectral geometry; finite geometry related to nonassociative division algebras.

**Mathematical Biology:** mathematical modeling of microbial populations, biofilms and competition dynamics; population biology and epidemiology; neuronal dynamics.

**Mathematical Statistics, Probability Theory and Stochastic Process:** multivariate analysis, statistical inference, sample survey and statistical process control; stochastic processes and applications to stochastic differential equations, random graphs, path integrals, quantum mechanics.

**Mathematical Education:** mathematics program development, impact of reform mathematics learning strategies on mathematics teaching, mathematics problem solving for teaching.

**Numerical Analysis:** numerical solutions to ordinary and partial differential equations; moving grid, multigrid and multilevel adaptive methods; fluid dynamics (mechanics); numerical simulation and scientific computation; numerical combustion; software development.

## Physics

Current research in the department is primarily in the areas of condensed matter physics, materials science and high energy physics. The theoretical condensed matter group is engaged in cluster, electron transport, electronic structure, molecular dynamics and path integral computations having relevance to the chemical, electrical and magnetic properties of surfaces, metals and semiconductors. The experimental condensed matter group is engaged in studies of diamond coatings, magnetic multilayers, metals, semiconductors and surfaces using electron, positron, optical and magnetic resonance spectroscopies. The experimental high energy group is involved in collider experiments at Fermilab, Brookhaven Laboratory and CERN to study QCD and to search for supersymmetry and other physics beyond the standard model. Other active research areas include high energy theory, optics, parallel computing and statistical physics.

## Psychology

Expertise and research activity include animal behavior, animal and human learning, cognitive processes, social psychology, psychobiology and developmental psychology. Current research interests include group brainstorming, verbal memory and neuropsychology, applied psychological measurement, pain systems, decision processes, naturalistic social cognition, stress, genetic and

hormonal determinants of aggressive and defensive behaviors and parent-offspring interactions, sea turtle behavior, and infant mental representation of objects.

## Science Education

The Master of Arts in Interdisciplinary Science (MAIS), a 36 credit hour degree program without a thesis requirement, was designed and developed by science teachers for science teachers. The program will help science educators strengthen and update their knowledge of content in two or more of the following cognate areas: biology, chemistry, earth & environmental sciences, mathematics, and physics. In addition to enhancing content knowledge, the courses will help educators develop teaching strategies that lead to improved student learning, implement high quality instructional materials, and develop skills in using various strategies for assessing student learning. The MAIS degree will serve the needs of classroom teachers, content-area and staff development specialists, curriculum developers, program directors, school administrators, college/university faculty, and educators from informal science institutions who have responsibility for designing, delivering, evaluating, and/or continuously improving standards-based science, mathematics, and technology instruction for students, prekindergarten through the undergraduate degree.

While engaging in the coursework, educators will become learners themselves to deepen their own mastery of scientific and/or mathematical content. The laboratory-based learning activities in the program will help science educators see teaching as less a matter of knowledge transfer and more as an activity of facilitation in which knowledge is generated, content is investigated in depth, and meaning is developed from experience. Graduates of the program will take their place as master science educators who are recognized as proven practitioners in delivering rigorous and relevant instruction and are valued as effective coaches, mentors, and teacher trainers.

## Programs

### Master of Science Degrees

Biology

Chemistry

Earth & Environmental Sciences (Both Thesis and Non-thesis)

Mathematics

Physics

Psychology

### Master of Arts Degree

Interdisciplinary Science (Non-thesis)

### Doctoral Degrees

Chemistry

Experimental Psychology

Physics and Applied Physics

Quantitative Biology

Mathematics

Environmental and Earth Sciences

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
    - Social Work - MSSW & PhD
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Social Work

### Dean **Scott Ryan**

Associate Dean **John Bricout**  
Associate Dean **Debra Woody**

Web [www.uta.edu/ssw/](http://www.uta.edu/ssw/)  
Email [sswadmissions@uta.edu](mailto:sswadmissions@uta.edu)  
Phone 817.272.3181  
Fax 817.272.5229

Social Work Complex Building A  
**211 S Cooper St**  
Box 19129, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Social Work

**Yvonne Butler**  
**Noelle Fields**  
**Janet Finch**  
**Schnavia Hatcher**  
**Michael Killian**  
**Anne Nordberg**

**Assistant Professor in Practice**  
**Jane Hickerson**

**Associate Dean for Research & Community Outreach**  
**John Bricout**

**Associate Dean of Academic Affairs**  
**Debra Woody**

**Professor**  
**Beverly Black**  
**Doreen Elliott**  
**Rebecca Hegar**  
**Richard Hoefler**  
**Ski Hunter**  
**Catheleen Jordan**  
**Vijayan Pillai**  
**Phillip Popple**  
**Maria Scannapieco**

**Associate Professor**  
**Randall Basham**  
**Norman Cobb**  
**Peter Lehmann**  
**Diane Mitschke**  
**Sung Moon**  
**Alexa Smith-Osborne**

#### **Assistant Professor**

[Gail Adorno](#)  
[Joan Blakey](#)  
[Courtney Cronley](#)  
[Elissa Madden](#)  
[Regina Praetorius](#)  
[Katherine Sanchez](#)  
[Eusebius Small](#)  
[Larry Watson](#)

#### **Professor Emeritus**

[James W Callicutt](#)  
[Wayne Duehn](#)  
[Peter G Gaupp](#)  
[Santos Hernandez](#)  
[Pedro J Lecca](#)  
[John J Litrio](#)  
[Nazneen Mayadas](#)  
[Charles Mindel](#)  
[Richard Schoech](#)  
[M Coleen Shannon](#)  
[Fernando G Torgerson](#)  
[Thomas Watts](#)

---

### **Graduate Advisors**

[Nancy Ashenart](#)  
*Social Work, Ph.D.*

[Randall Basham](#)  
*Social Work, M.S.S.W.*

[Beverly Black](#)  
*Social Work, Ph.D.*

#### **Mission and Philosophy**

#### **History and Overview**

#### **Accreditation**

#### **Scholastic Activity and Research Interests of the Faculty**

#### **Programs**

### **Mission and Philosophy**

The mission of the UT Arlington School of Social Work is to advance knowledge, pursue excellence, provide leadership and service for enhancing well being, and to promote social and economic justice and cultural competence with diverse cultures.

### **History and Overview**

The School of Social Work was established as the Graduate School of Social Work in 1967 by an act of the Texas Legislature. It became the School of Social Work in 1991 when the University's undergraduate social work program in the College of Liberal Arts merged with the school's graduate program.

More than 4,000 students have earned degrees at the school and many hold key management positions in public agencies and nonprofit organizations nationwide. Currently, the school has a diverse student body of approximately 600 M.S.S.W. graduate students and 60 Ph.D. students. Many of these students also hold full- or part-time positions in public agencies and nonprofit organizations.

One distinguishing feature of the school is its location in the heart of the Dallas-Fort Worth Metroplex, a rich urban laboratory of more than 150 cities with a population over 4.5 million. This

complex social arena offers a wide array of opportunities for student projects, field placements and employment. Social work faculty, staff and students work on "real-life" social problems in cooperation with city governments, public agencies and nonprofit organizations.

## Accreditation

The Council on Social Work Education has fully accredited the M.S.S.W. program. Accreditation is an important consideration for students because many professional social work positions require a degree from a CSWE accredited program. Academic credit for life experience and previous work experience is not given.

## Scholastic Activity and Research Interests of the Faculty

School of Social Work faculty engage in research and community-service projects that enhance the effectiveness of the programs of public and nonprofit social-service organizations, that promote social justice and equality, and that extend the body of knowledge about social issues. Research topics span the broad range of social-work issues, including feminist theory, minority rights, child abuse, mental illness, ethics, aging, sexual abuse, community development, lesbian and gay persons, marital and family therapy, family violence, clinical assessment, stalking, constructivism, cognitive-behavioral treatment efficacy, adoption, siblings, foster care, African American fathers, substance abuse, social policy, and evaluations of state and federal child-welfare and community-service programs.

## Programs

The School of Social Work currently offers two graduate programs of study: the Master of Science in Social Work (M.S.S.W.) and the Ph.D. The Ph.D. program offers two options: the Ph.D. in Social Work or a specialty in comparative social policy, in collaboration with La Universidad Autonoma de Nuevo Leon, that is taught in Texas and Mexico and requires fluency in English and Spanish. Degrees are awarded from both universities.

The school offers distance education M.S.S.W. programs in cooperation with other universities across the state. More than 400 students have graduated from such programs. Courses are also offered via the Internet and telecommunication for local students and those in distance education programs.

The school also offers training, research and service opportunities to faculty and students through its centers and other programs. The Judith Granger Birmingham Center for Child Welfare provides support and graduate training to current and potential child-welfare workers and supports faculty and student research on child-welfare issues. The Community Services Center is an instructional facility that provides a university-community partnership addressing community issues. The partnership enables university students, faculty and neighborhood organizations to work together to tackle complex socioeconomic issues facing the neighborhoods that surround them, such as poverty, domestic violence, homelessness and community revitalization. The purpose of the center is twofold: to provide professional training for graduate students and to provide professional services to the community. Community development interns conduct needs assessments, write grant proposals, design new programs, conduct evaluations, perform research and organize action groups. Community clinic interns provide affordable counseling for children, adolescents and families. Counseling services include individual counseling, marriage counseling, premarital counseling, family therapy, group counseling, anger control therapy, and social skills training. The community clinic also provides graduate interns an opportunity to conduct research programs in the area of counseling. The Center for Research, Evaluation and Technology involves students and faculty in program evaluations for local social service agencies and in the development of new and innovative ways to support human services practice. The Professional Development Program provides continuing education seminars for social work practitioners and other human services professionals. The seminars provide the continuing education units necessary for license renewals.

The school hosts an annual conference for students, alumni and community professionals.

[www.uta.edu/ssw](http://www.uta.edu/ssw)

Published in June of 2013. This catalog supersedes the **2012-2013 Graduate Catalog**.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
    - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Urban and Public Affairs

### Dean [Barbara Becker](#)

Web [www.uta.edu/supa/](http://www.uta.edu/supa/)  
Phone 817.272.3071  
Fax 817.272.5008

511 University Hall  
[601 S Nedderman Dr](#)  
Box 19588, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### City and Regional Planning

**Graduate Advisor**  
[Karolyn Field](#)

**Program Director**  
[Ivonne Audirac](#)

**Professor**  
[Ardeshir Anjomani](#)  
[Barbara Becker](#)  
[Jianling Li](#)

**Associate Professor**  
[Enid Arvidson](#)  
[Carl Grodach](#)

**Assistant Professor**  
[Karabi Bezboruah](#)  
[Yekang Ko](#)  
[Andrew Whittemore](#)

#### Interdisciplinary Studies

**Assistant Director**  
[Michael Wollman](#)

**Graduate Advisor**  
[Karolyn Field](#)

**Assistant Professor**  
[Michan Connor](#)  
[James Welch IV](#)

**Clinical Professor**  
[Mike West](#)

#### Public Administration

**Graduate Advisor**

**Karolyn Field**

**Program Director**  
**David Coursey**

**Professor**  
**Richard Cole**

**Associate Professor**  
**Rod Hissong**  
**Maria Martinez-Cosio**  
**Alejandro Rodriguez**

**Assistant Professor**  
**Karabi Bezboruah**  
**Colleen Casey**  
**Darla Hamann**

## **Urban and Public Affairs**

**Mahyar Arefi**  
**Shima Hamidi**

**Graduate Advisor**  
**Karolyn Field**

**Program Director**  
**David Coursey**

**Professor**  
**Ardeshir Anjomani**  
**Richard Cole**

**Associate Professor**  
**Enid Arvidson**  
**Rod Hissong**  
**Maria Martinez-Cosio**  
**Alejandro Rodriguez**

**Assistant Professor**  
**Colleen Casey**  
**Darla Hamann**

---

## **Graduate Advisors**

**Ardeshir Anjomani**  
*Urban Planning & Public Policy, Ph.D.*

**David Coursey**  
*Public & Urban Administration, Ph.D.*

**Karolyn Field**  
*City & Regional Planning, M.CIRP.*  
*Public & Urban Administration, Ph.D.*  
*Public Administration, M.P.A. On Campus.*  
*Urban Affairs, M.A.*  
*Urban Planning & Public Policy, Ph.D.*

**Anthony Valdez**  
*City & Regional Planning, M.CIRP.*  
*Public & Urban Administration, Ph.D.*  
*Public Administration, M.P.A. On Campus.*  
*Urban Affairs, M.A.*  
*Urban Planning & Public Policy, Ph.D.*

**Mission and Philosophy**

**History and Overview**

## Accreditation

### Scholastic Activity and Research Interests of the Faculty

#### Programs Overview

- [Degree Programs](#)
- [Master's Programs](#)
- [Certificate Programs](#)
- [Ph.D. Programs](#)

## Mission and Philosophy

The mission of the School of Urban and Public Affairs is to conduct basic and applied research into urban problems and public policy, to provide services in support of public and nonprofit agencies, and to educate and train students for public service careers.

## History and Overview

SUPA was established in 1967 as the Institute of Urban Studies by an act of the Texas Legislature. The institute's mandate was to offer Texas city and county governments and other public agencies high-caliber, university-based research, training and other technical services. In 1990, after significant expansion of its staff and programs, the organization became the School of Urban and Public Affairs. The institute continues to operate as a vital part of the school.

SUPA is the state's only university-based center for applied research and service in urban affairs. It is called upon routinely to study and recommend solutions for problems confronting government agencies, nonprofit organizations and private industry.

During its more than 40 years of existence, SUPA has conducted hundreds of studies on such topics as transportation, housing, local economic development, public safety, corrections, education, human services, child care and regional governance. Its reports are included in the collections of virtually every major library in Texas and have been adopted as texts at many colleges and universities.

Within SUPA is the Institute of Urban Studies that is a primary source of information and advice in such matters as computer applications in urban management, home rule charters, redistricting, inter-local contracting, economic development, personnel management, revenue administration, land appraisal, zoning and land-use issues. SUPA is active in training local government officials and in consulting on service projects for governmental agencies worldwide. Urban professionals rely on SUPA for consultation and guidance in accomplishing such goals as urban revitalization, pollution control, conservation, and facility planning and siting.

SUPA uses the most advanced computers, data collection and analysis techniques in conducting research, and its more than 20 faculty and staff draw upon their rich and diverse educational and cultural backgrounds. One distinguishing feature of SUPA is its location in the heart of the Dallas-Fort Worth Metroplex, a rich urban laboratory of more than 200 cities with a total population of approximately 6 million. This complex urban arena offers a wide array of opportunities for student projects, internships and employment. SUPA faculty, staff and students work on "real-life" urban and public affairs projects in cooperation with city governments, public agencies and nonprofit organizations through the school's institutes and centers.

## Accreditation

The School of Urban and Public Affairs is one of only approximately 20 in the country having both its Master's of Public Administration and its Master's of City and Regional Planning programs fully accredited by their respective accrediting agencies.

The Master's of City and Regional Planning is officially recognized and accredited by the Planning Accreditation Board that accredits North American planning programs on the basis of a strict and extensive set of criteria rooted in planning knowledge, skills, and values. Students enrolled in accredited programs are eligible for certain national scholarships, and graduates of accredited programs may qualify for certification by the American Institute of Certified Planners after fewer years of experience than graduates of nonaccredited programs.

The Master's of Public Administration degree is accredited by the National Association of Schools of Public Affairs and Administration that requires public administration programs to meet strict standards for faculty qualifications, curriculum content, admissions and program requirements, student composition and services, budget and facilities. Accreditation enhances the program's national reputation and opens doors and provides opportunities for students applying for Texas-based scholarships and nationwide positions.

SUPA was ranked as one of the best programs in the nation by U.S. News & World Report in 2008.

## **Scholastic Activity and Research Interests of the Faculty**

SUPA faculty are actively engaged in research and community service projects that benefit local jurisdictions, public and nonprofit agencies with expertise that is beyond the normal scope of their particular services and resources. Typical projects include revitalization studies for inner-city neighborhoods, development plans for central business districts, economic development strategies for municipalities, inter-local contracting studies, and assessments of service delivery alternatives in communities and school districts.

The broad range of faculty research interests primarily focuses on local issues and provides support for local officials and urban professionals, but it also includes basic research into urban problems and public policy that is published in national journals and used in university texts. Research topics include such urban affairs issues as urban theory, development, management, politics, social welfare policy, social service administration and minority relations; such planning issues as urban design, land use analysis, environmental planning, economic development, community service and development, focus group research and group facilitation; and such public administration issues as public management, intergovernmental relations, entrepreneurship in government, education and economic development.

## **Programs Overview**

### **Degree Programs**

Master's of Arts in Urban Affairs  
Master's of City and Regional Planning  
Master's of Public Administration  
Ph.D. in Public and Urban Administration  
Ph.D. in Urban Planning and Public Policy

SUPA participates in dual-degree programs with the schools of Architecture, Nursing and Social Work. It participates with the colleges of Engineering and Science in an interdisciplinary program leading to Master's and Doctoral degrees in environmental science and engineering.

### **Master's Programs**

#### **Urban Affairs**

The Master of Arts in Urban Affairs prepares students for policy and/or management positions in local government, regional government, nonprofit and private sector consulting and for other professional positions in economic development, social planning, community organizing, and urban journalism.



The program is organized around public policy issues with emphasis on the problems and questions related to life in urban communities. Because urban issues are complex and require the understanding and skills of many disciplines, the program is interdisciplinary in character, curriculum content, teaching staff, and enrollment. The degree is built around an urban core with students choosing a policy or non-profit oriented concentration.

### **City and Regional Planning**

The MCRP program prepares students for careers as professional planners with public, private and nonprofit organizations. It does this by training students to apply planning theory, knowledge, techniques, and skills to “real world” planning problems through coursework, studios, and internship opportunities.

UTA’s City and Regional Planning Master’s Degree Program is accredited by the [Planning Accreditation Board](#) (PAB). The program’s mission, goals and objectives, and accreditation efforts are shaped in consultation with the MCRP Advisory Board composed of alumni and area practitioners.

### **Public Administration**

Public Administration is concerned with the formulation, analysis, negotiation, and implementation of democratically responsible collective action. With an interdisciplinary focus, this program gives special emphasis to the urban community and the special challenges of public managers who serve in urban areas. The curriculum is designed to develop leadership capacity, understanding of the political, social, and economic characteristics of today’s urban environment and the ability to apply current theories of management and analysis to difficult management issues. The program is meant as preparation for those entering management careers in government for the first time or as career development for those already employed who are seeking upward mobility in public management. The Master of Public Administration is a joint program of the School of Urban and Public Affairs and the Department of Political Science.

The MPA degree at the School of Urban and Public Affairs is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA), and the curriculum conforms to NASPAA standards.

### **Certificate Programs**

SUPA offers certificate programs in Development Review, Geographic Information Systems, Public Budgeting and Financial Management and Urban Non-Profit Management, designed to provide skills and proficiency in highly specialized areas. Students enrolled in graduate degree programs at UT Arlington as well as students not enrolled in graduate degree programs are eligible to apply for these certificate programs. Students who are already enrolled in a graduate degree program at U.T. Arlington need only declare their intent to enroll by contacting their academic advisor. No prerequisites are required for these students. Those desiring to enroll in a certificate program but who are not currently enrolled in a graduate program may do so by applying to UT Arlington as a non-degree seeking special student. Upon completion of all requirements, a certificate of completion is awarded by the University. Information on all certificate programs can be found below by clicking on the certificate of interest.

### **Ph.D. Programs**

#### **Urban Planning and Public Policy Program**

The UPPP Ph.D. program requires a minimum of 48 credit hours beyond the master’s degree, including 39 credit hours of coursework and a minimum of 9 dissertation credit hours. The 39 credit hours of coursework include: 6 hours of leveling courses, 9 hours in the required core of urban planning and public policy, 6 hours of methods courses and 18 hours of elected specialization courses. Courses and credit hours may be waived for students with relevant previous coursework upon approval of the dissertation supervisor and program director.

Coursework in the required core, which covers core knowledge and competencies in planning and policy, as well as the courses in the selected field areas prepares students for the field exam. In

their first semester, students select their committee based on their interests and take a diagnostic exam. The student's committee will then guide their course work, including any extra courses needed based on their diagnostic exam.

### **Public and Urban Administration**

The PUAD Ph.D. has eight required core courses, three required research courses, and a minimum of 9 dissertation credit hours. The eight core courses address the social sciences and public administration literatures critical to the integrative approach of the program. The methods courses include an intermediate quantitative methods course, and a qualitative methods course. Students also enroll in URPA 6301 to guide them in preparing their dissertation proposal. Students select their supervising committee during their first year to help guide them through their comprehensive exams and begin working on their dissertation proposal.

A student can expect to complete the 11 required courses in no more than two academic years. Upon completing them, students sit for their written comprehensive examination. The comprehensive examination is an integrative exam that blends public policy issues with public administration.

Students who completed a Masters in Public Administration may be eligible to waive some coursework and are encouraged to meet with the PUAD advisor.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
    - Biology
    - Chemistry & Biochemistry
    - Earth and Environmental Sciences
    - Interdisciplinary Science
    - Mathematics
    - Physics
    - Psychology
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Interdisciplinary Science

College of Science

Web [cos.uta.edu/mais/](http://cos.uta.edu/mais/)

Email [ints@uta.edu](mailto:ints@uta.edu)

Phone 817.272.3511

501 S Nedderman Drive

---

### Degrees / Certificates

#### Master's Degrees

Interdisciplinary Science, M.A.

---

### Graduate Faculty

#### Director

[Gregory Hale](#)

---

### Graduate Advisors

#### [Gregory Hale](#)

*Interdisciplinary Science, M.A.*

---

### Department Information

#### Courses

## Department Information

### Objective Admission

- [Unconditional](#)
- [Admission as Special Student](#)
- [Degree Requirements](#)

### Objective

The Master of Arts in Interdisciplinary Science program is designed to strengthen and update the knowledge and skills necessary to teach science at the elementary, middle school, or secondary level. The MAIS degree is intended to help prepare teachers who desire certification in science, teachers who may wish to expand their knowledge of specific science disciplines, or those who wish to update their knowledge in rapidly changing science disciplines. Traditional masters degrees focus on classes in a single science department and encourage mastery of material in a sub specialty within the discipline. A thesis involving scientific research in the area of specialization is usually encouraged. In contrast, the MAIS program allows students to explore two or three areas of interest, and the courses are designed to provide an overview of current knowledge in each field. Since this is not a research-oriented degree, no thesis is required.

The content of the required courses was developed to contain material consistent with TEKS standards and to provide as much replicable laboratory experience as possible. While these classes are drawn from the foundational classes in each discipline, they are designed to cover the areas in greater depth, deal with historical aspects of the topics not covered in undergraduate classes, and focus on teaching and laboratory methodologies.

## Admission

### Unconditional

Students applying for unconditional admission to the MAIS program must meet the general graduate school admission requirements as outlined in the graduate catalog and earn a combined score of 1000 on the Graduate Record Exam (GRE).

### Admission as Special Student

Students may apply for admission to the MAIS program as a "special student." Special student admission will allow an individual to enroll for 9 credit hours of MAIS coursework. Upon completion of 9 credit hours, the student must apply for unconditional admission to the MAIS program and pay an additional \$40 application fee. If the applicant has completed 9 credit hours of coursework with a 3.0 or higher, the completed coursework will substitute for the GRE examination.

### Degree Requirements

The MAIS degree is a 36 credit hour, non-thesis degree. Beginning students are encouraged to enroll in Contemporary Science, SCIE 5301, and students completing the degree enroll in a Capstone Science Seminar, SCIE 5302. These two courses constitute the 6 credit hour science core.

Students can select two or three areas of concentration from biology, chemistry, earth & environmental sciences, mathematics, and physics. If the student chooses two concentration areas, each concentration will consist of four 3 credit hour courses for a total of 12 credit hours each. The remaining six credit hours may be taken as unrestricted science and math electives. If the student chooses three concentration areas, each concentration will consist of three 3 credit hour courses for a total of 9 credit hours each. The remaining three credit hours may be taken as unrestricted science or math electives. Students may also choose to select elective courses from College of Education and Health Professions graduate coursework with advisor approval.

Students must file a degree plan approved by the graduate advisor two long semesters prior to graduation.

## SCIE Courses

### SCIE5192 – SELECTED TOPICS IN SCIENCE

1 Lecture Hour · 0 Lab Hours

Topics in science not treated in the regular curriculum. Topic, format, and prerequisites to be determined by

the instructor. May be repeated for credit as different topics are offered

### **SCIE5292 – SELECTED TOPICS IN SCIENCE**

**2** Lecture Hours · **0** Lab Hours

Topics in science not treated in the regular curriculum. Topic, format, and prerequisites to be determined by the instructor. May be repeated for credit as different topics are offered

### **SCIE5301 – CONTEMPORARY SCIENCE**

**3** Lecture Hours · **0** Lab Hours

This class will review modern topical areas in contemporary science from a broadly multidisciplinary view. Readings from popular and scientific journals will be combined with lectures from different disciplines, to review the newest science innovations. Materials presented will familiarize students with current research, major breakthroughs in various fields, and the foundational science behind the discoveries. Topics covered should enrich K-12 science curricula and help teachers to address student questions about breaking science news. This class is intended for M.A. in Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in the College of Science.

### **SCIE5302 – CAPSTONE SCIENCE SEMINAR**

**3** Lecture Hours · **0** Lab Hours

The Capstone Science Seminar is an intensive research and discussion class that will focus on new studies in science education and practice. Students in the M.A. in Science program should take this class in the last semester of study. This class will include a research project relevant to science education, and formal presentation of the research. This class is intended for M.A. in Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in the College of Science

### **SCIE5303 – TEACHING AND LEARNING: SCIENTIFIC INQUIRY**

**3** Lecture Hours · **0** Lab Hours

Scientific inquiry refers to the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work. This course explores inquiry as it refers to the activities of students in which they develop knowledge and understanding of scientific ideas, as well as an understanding of how scientists study the natural world

### **SCIE5304 – SPECIAL TOPICS IN SCIENCE I**

**3** Lecture Hours · **0** Lab Hours

Seminar on significant research in science. Topics are selected with the assistance of the instructor and may include both pure and applied science

### **SCIE5305 – SPECIAL TOPICS IN SCIENCE II**

**3** Lecture Hours · **0** Lab Hours

Seminar on significant research in science. Topics are selected with the assistance of the instructor may include both pure and applied science

### **SCIE5307 – INTEGRATED PHYSICS AND CHEMISTRY: CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

This integrated study of physics and chemistry fundamental chemical principles including atomic structure, chemical bonding, the periodic table, nomenclature, kinetic theory, gas laws, chemical equations, and solutions.

### **SCIE5308 – INTEGRATED PHYSICS AND CHEMISTRY: PHYSICS**

**3** Lecture Hours · **0** Lab Hours

This integrated study of physics and chemistry includes force and motion, waves and thermodynamics, energy transformations, quantum physics, and atomic structure.

### **SCIE5321 – MECHANICS, HEAT, & WAVE MOTION**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Topics include: 1) Newton's laws of motion, gravitation, and planetary motion; 2) the basic laws of thermal and statistical physics; 3) oscillatory motion including waved and sound. Replicable experiments will be demonstrated throughout the course. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: Trigonometry.

### **SCIE5322 – ELECTRICITY, MAGNETISM, CIRCUITS, & OPTICS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Topics include: 1) Static changes, current flows, electric and magnetic fields; 2) simple DC/AC electrical circuits including examples from household circuit and practical electronic devices; 3) light and optics including examples such as camera, microscopes and telescopes. Replicable experiments will be demonstrated throughout the course. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: SCIE 5321.

### **SCIE5323 – MODERN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Topics include: 1) introduction to special relativity and quantum theory; 2) light and radiation; 3) applications to modern electronic devices; 4) nuclear particle physics. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: SCIE 5321, SCIE 5322.

### **SCIE5329 – LABORATORY TECHNIQUES IN PHYSICS**

**0** Lecture Hours · **2** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Experiments demonstrating various topics are covered. Experiments include gravitational acceleration heat flow, harmonic motion, sound, electric, magnetic fields, electric circuits, optic, x-rays and nuclear radiation. This class is intended for M.A. in Interdisciplinary Science majors and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: SCIE 5321, SCIE 5322.

### **SCIE5330 – EARTH SYSTEMS, PART I**

**3** Lecture Hours · **0** Lab Hours

A review of Earth materials and their chemistry. Earth structure and geologic time, followed by a detailed discussion of the plate tectonic system, the hydrologic system, and their interaction in weathering and erosion, sedimentation, and landscape development. Laboratory demonstrations will include identification of earth materials, estimating plate motions, location of earthquake epicenters, flood frequency, and groundwater discharge. These classes are intended for M.A. in Interdisciplinary Science majors and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline.

### **SCIE5331 – EARTH SYSTEMS, PART II**

**3** Lecture Hours · **0** Lab Hours

A detailed discussion of the atmosphere system, oceanic systems, biologic systems, and their history. A summary discussion of the interaction of Earth Systems for an understanding of processes that have formed and continue to form the Planet Earth. Laboratory demonstrations will include weather forecasting, ocean currents, sea level change, and fossil identification. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline. Prerequisite: SCIE 5330 and admission into the M.A. in Interdisciplinary Science program.

### **SCIE5332 – EARTH RESOURCES & THE ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

A detailed discussion of resources that support life: atmosphere, water, soil, minerals and materials, and energy; the use of those resources and the effect on the environment and global change; and the relation between population, resource distribution and availability, and environmental pollution. These classes are intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline. Prerequisite: SCIE 5330, SCIE 5331, and admission into the M.A. in Interdisciplinary Science Program.

### **SCIE5335 – LABORATORY METHODS & TECHNIQUES**

2 Lecture Hours · 2 Lab Hours

Methods and techniques used to identify minerals, rocks and fossils; maps and mapping of geological data; recognition of landslides; flood frequency and erosion processes of river and streams; location of earthquakes. These classes are intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline. Prerequisite: SCIE 5330, SCIE 5331 and admission into the M.A. in Interdisciplinary Science Program.

### **SCIE5355 – PRINCIPLES OF CHEMISTRY**

3 Lecture Hours · 0 Lab Hours

The fundamentals of atomic structure, chemical bonding, the periodic table, nomenclature, gas laws, chemical equations, and solutions. The course will be supplemented with laboratory demonstrations devoted to chemical problem-solving, library and Internet resources, chemical ethics, etc. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline.

### **SCIE5356 – PRINCIPLES OF CHEMISTRY II**

3 Lecture Hours · 0 Lab Hours

Study of advanced atomic structure and bonding concepts, acid-base theory, kinetics and equilibria, thermodynamics, electrochemistry, and the chemistry of some elements. The course will be supplemented with laboratory demonstrations devoted to chemical problem solving, library and internet resources, chemical ethics etc. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline. Prerequisite: SCIE 5355.

### **SCIE5357 – INTRODUCTORY ORGANIC & BIOCHEMISTRY**

3 Lecture Hours · 0 Lab Hours

Survey of organic and biochemistry with emphasis on application to the human body. Organic functional groups and nomenclature, organic reactions, carbohydrates, lipids, proteins, enzymes, metabolism, and nucleic acids. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline. Prerequisite: SCIE 5355, SCIE 5356.

### **SCIE5358 – LABORATORY PROBLEMS IN CHEMISTRY**

2 Lecture Hours · 2 Lab Hours

Experiments related to fundamental principles covered in SCIE (formerly CHEM) 5355 and 5356. Volumetric and gravimetric determinations and qualitative analysis. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline. Prerequisite: SCIE 5355, SCIE 5356.

### **SCIE5371 – CELL AND MOLECULAR BIOLOGY**

3 Lecture Hours · 0 Lab Hours

The course focuses on the chemical and molecular basis of life, including metabolism, cell structure and function and genetics. This class is intended for M.A. in Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline.

### **SCIE5372 – STRUCTURE & FUNCTION OF ORGANISMS**

3 Lecture Hours · 0 Lab Hours

The study of structure and function of plants and animals. Topics to be covered include structure at the



level of the cell, tissue, organ and individual, growth, transport/circulation/gas exchange, nutrition, reproduction, development, endocrinology, and animal neural regulation. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline. Prerequisite: SCIE 5371.

### **SCIE5373 – EVOLUTION, ECOLOGY, AND BIODIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Reviews three significant aspects of organismal biology and presents current hypotheses concerning the origin and diversification of life on Earth. The ecological and behavioral interactions between organisms and their biotic/abiotic environments are considered from an evolutionary perspective. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline. Prerequisite: SCIE 5371, SCIE 5372.

### **SCIE5374 – LABORATORY PROBLEMS IN BIOLOGY**

**2** Lecture Hours · **2** Lab Hours

Laboratory experiments related to fundamental principles covered in SCIE (formerly BIOL) 5371 and 5372. This course will utilize labs designed by Master Biology Teachers. These will be supplemented by labs published by the National Association of Biology Teachers, and various biology publishers. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline. Prerequisite: SCIE 5371, SCIE 5372.

### **SCIE5380 – MENTORED RESEARCH**

**6** Lecture Hours · **0** Lab Hours

Research under the direction of a College of Science faculty member. No more than six credit hours of SCIE 5380 may be taken for a letter grade. Prerequisite: written permission of the instructor.

### **SCIE5392 – SELECTED TOPICS IN SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Topics in science not treated in the regular curriculum. Topic, format, and prerequisites to be determined by the instructor. May be repeated for credit as different topics are offered

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[Biology](#)

[Chemistry &  
Biochemistry](#)

[Earth and Environmental  
Sciences](#)

[Interdisciplinary Science](#)

[Mathematics](#)

[Physics](#)

[Psychology](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Mathematics

College of Science

### Chair Jianzhong Su

Web [www.uta.edu/math/](http://www.uta.edu/math/)

Email [math@uta.edu](mailto:math@uta.edu)

Phone 817.272.3261

Fax 817.272.5802

478 Pickard Hall

### Degrees / Certificates

#### Master's Degrees

Mathematics (General Mathematics), M.S.

Mathematics (General Statistics), M.S.

Mathematics, M.A.

#### Doctoral Degrees

Mathematical Sciences, Mathematics, Ph.D.

Mathematics (General Mathematics), B.S. to Ph.D.

Mathematics (General Mathematics), Ph.D.

Mathematics (General Statistics), B.S. to Ph.D.

Mathematics (General Statistics), Ph.D.

#### Certificates

Applied Statistics Certificate

### Graduate Faculty

[Suvra Pal](#)

[Jonghyun Yun](#)

#### Professor

[Tuncay Aktosun](#)

[Benito Chen](#)

[Minerva Cordero-Epperson](#)

[Chien-Pai Han](#)

[David Jorgensen](#)

[Hristo Kojouharov](#)

[Andrzej Korzeniowski](#)

[Ren-Cang Li](#)

[Guojun Liao](#)

[Chaoqun Liu](#)

[Yue Liu](#)

[Merlynd Nestell](#)

[Jianzhong Su](#)

[Shan Sun-Mitchell](#)

[Michaela Vancliff](#)

**Associate Professor**  
[Gaik Ambartsoumian](#)  
[James Epperson](#)  
[Ruth Gornet](#)  
[Dimitar Grantcharov](#)  
[Doyle Hawkins](#)  
[Theresa Jorgensen](#)  
[Barbara Shipman](#)

**Assistant Professor**  
[Yan Li](#)

---

## Graduate Advisors

**James Epperson**  
*Mathematics, M.A.*

**Hristo Kojouharov**  
*Applied Statistics Certificate*  
*Mathematical Sciences, Mathematics, Ph.D.*  
*Mathematics (General Mathematics), B.S. to Ph.D.*  
*Mathematics (General Mathematics), M.S.*  
*Mathematics (General Mathematics), Ph.D.*  
*Mathematics (General Statistics), B.S. to Ph.D.*  
*Mathematics (General Statistics), M.S.*  
*Mathematics (General Statistics), Ph.D.*

---

## Department Information

### Courses

# Department Information

## Objective

### Admissions Requirements

- **Master of Science Program**
- **Master of Arts Program**
- **Certificate of Applied Statistics Program**
- **Doctoral Program**
- **Doctoral Program (B.S.-Ph.D. track)**

### Master of Science Degree Requirements

### Master of Arts Degree Requirements

### Certificate of Applied Statistics Requirements

### Ph.D. Degree Requirements

### Ph.D. Degree Requirements for the B.S.-Ph.D. track

## Objective

The objectives of the Mathematics Department's program at the master's level are (1) to develop the student's ability to do independent research and prepare for more advanced study in

mathematics, and (2) to give advanced training to professional mathematicians, mathematics teachers, and those employed in engineering, scientific, and business areas.

Graduate work will be offered in algebra, complex and real variables, differential equations, functional analysis, geometry, mathematics education, numerical analysis, operations research, probability, statistics and topology.

## Admissions Requirements

### Master of Science Program

For unconditional admission, a student must meet the following requirements:

1. A B.A. or B.S. degree in mathematics or closely related field.
2. An overall GPA in the final 60 hours of coursework of a 3.0 or better, as calculated by the Graduate School, on a 4.0 scale.
3. Minimum of 350 on the verbal and 650 on the quantitative portions of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 143 on the verbal and 151 on the quantitative portions of the GRE if taken after August 2011.
4. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or a minimum score of 213 on a computer-based test, or a minimum score of 79 on an internet-based test) or a minimum score of 40 on the Test of Spoken English.
5. Three favorable letters of recommendation from people familiar with the applicant's academic work.

Applicants who do not satisfy requirements 2 or 3 above may be considered for unconditional admission if further review of their undergraduate transcript, recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the Master's Program without deficiency.

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

Students who are unconditionally admitted or admitted on probation will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in the last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain the fellowship.

Applicants may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Master of Arts Program

For unconditional admission a student must meet items 1-3 or 3-5.

1. A B.S. or B.A. degree with at least 24 hours of mathematics coursework with a GPA of at least 3.0, as calculated by the Graduate School on a 4.0 scale.
2. Minimum of 400 on the verbal and 600 on the quantitative portions of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 146 on the verbal

and 148 on the quantitative portions of the GRE if taken after August 2011.

3. Three favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.
4. A B.S. or B.A. degree with a GPA of at least 3.0, as calculated by the Graduate School on a 4.0 scale.
5. Certified to teach mathematics at the Secondary Level (Secondary Mathematics Certification).

Applicants who do not satisfy requirements 1 or 2 above may be considered for unconditional admission if further review of their undergraduate transcript, recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the Master's Program without deficiency.

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

Applicants may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Certificate of Applied Statistics Program

The admission standard is the same as that of Master of Science Program.

### Doctoral Program

For unconditional admission a student must meet the following requirements:

1. A master's degree or at least 30 hours of graduate coursework in mathematics or closely related fields.
2. A minimum GPA of 3.0, as calculated by the Graduate School, on a 4.0 scale in graduate coursework.
3. Minimum of 350 on the verbal and 700 on the quantitative portions of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 143 on the verbal and 155 on the quantitative portions of the GRE if taken after August 2011.
4. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or a minimum score of 213 on a computer-based test, or a minimum score of 79 on an internet-based test) or a minimum score of 40 on the Test of Spoken English.
5. Three favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

Applicants who do not satisfy requirements 2 or 3 above may be considered for unconditional admission if further review of their undergraduate transcript, recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the Doctoral Program without deficiency.

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

Applicants may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Doctoral Program (B.S.-Ph.D. track)

For unconditional admission a student must meet the following requirements:

1. A bachelor's degree in mathematics or in a closely related field.
2. A minimum GPA of 3.00 on the 4.00 scale in undergraduate course work, as calculated by the UT Arlington Graduate School.
3. A minimum of 350 on the verbal part and 700 on the quantitative part of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 143 on the verbal and 155 on the quantitative portions of the GRE if taken after August 2011.
4. For an applicant whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or a minimum score of 213 on a computer-based test, or a minimum score of 79 on an internet-based test) or a minimum score of 40 on the Test of Spoken English.
5. At least three letters of recommendation from people familiar with the applicant's academic work and/or professional work.

Applicants who do not satisfy requirement 2 or/and 3 above may be considered for an unconditional admission if a further review of their undergraduate transcript(s), recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the B.S.-Ph.D. track program without deficiency.

If an applicant does not meet a majority of standards for an unconditional admission outlined above, he/she may be considered for a probationary admission after a careful examination of his/her application materials. A probationary admission requires that the applicant receive grades of B or better in the first 12 hours of graduate course work at UT Arlington.

An applicant may be denied admission if he/she has less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when the applicant's file is incomplete or when a denial on his/her admission is not appropriate. An applicant who is unable to supply all required documentation prior to the admission deadline but who otherwise appears to have met admission requirements may be granted provisional admission.

Students who are unconditionally admitted or admitted on probation will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in the last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain the fellowship.

### Master of Science Degree Requirements

The Department of Mathematics offers master's degree programs in mathematics with additional emphasis in applied mathematics, computer science, mathematics education, pure mathematics, and statistics. All students are to use either the thesis or thesis-substitute plan.

All students in Master of Science program must complete one of the following:

1. General Mathematics core requirements:

MATH 5300: Computer Programming and Applications

MATH 5307: Mathematical Analysis I

MATH 5308: Mathematical Analysis II

MATH 5333: Linear Algebra and Matrices

One of the following tracks:

Applied Mathematics: MATH 5350, 5351, and either 5320 or 5321

Computer Science: MATH 5338 and 5339, and either 5371 or 5373, and six approved hours in computer science engineering

Mathematics Education: Nine hours from MATH 5336, 5337, 5340-5348, 5352

Pure Mathematics: MATH 5331 (replaces MATH 5300), either 5317 or 5322, either 5332 or 5334, and either 5304 or 5326

Core requirements can also be fulfilled by completing core requirements in the BS-Ph.D. track in the Doctoral program.

2. General Statistics core requirements:

MATH 5300: Computer Programming and Applications

MATH 5307: Mathematical Analysis I

MATH 5333: Linear Algebra and Matrices

One of the following three courses:

MATH 5356: Applied Multivariate Statistical Analysis

MATH 5357: Sample Surveys

MATH 5392: Regression Analysis

MATH 5305: Statistical Methods

MATH 5312: Mathematical Statistics I

MATH 5313: Mathematical Statistics II

Core requirements can also be fulfilled by completing core requirements in the BS-Ph.D. track in the Doctoral program.

In addition:

- a. Those students enrolled in the thesis substitute plan must take MATH 5395, and all except those in the computer science track must take at least nine other hours of electives.<sup>[1]</sup>
- b. Those students enrolled in the thesis plan must take at least six hours of MATH 5398-5698, and all except those in the computer science track must take at least three other hours of electives.<sup>[1]</sup>

[1] Electives may not be chosen from MATH 5336, 5337, 5340-5348, 5352, 5370, 5375-5379.

Students in every degree plan must pass a final exam.

## Master of Arts Degree Requirements

The master of arts program in the Department of Mathematics is designed for those who are interested in strengthening their understanding of mathematics and enriching their mathematics teaching. The program focuses on enhancing mathematics teaching through preparation in topics grounded in secondary school mathematics from an advanced standpoint. The program embraces a philosophy of teaching and learning mathematics that is consistent with the landmark *Standards* documents produced by the National Council of Teachers of Mathematics.

The requirements for the master of arts degree are 30 hours of graduate courses from the Department of Mathematics and a 3 hour project.

All students must complete the following:

1. Required Courses (6) and Project:

MATH 5341: Concepts and Techniques in Geometry

MATH 5342: Concepts and Techniques in Algebra

MATH 5343: Concepts and Techniques in Probability and Statistics

MATH 5344: Mathematics-Specific Technologies

MATH 5345: Concepts and Techniques in Analysis



MATH 5346: Concepts and Technique in Problem Solving  
 MATH 5395: Project - Individual, Director-Approved Research

2. Elective Courses (4):

MATH 5300: Computer Programming and Applications  
 MATH 5305: Statistical Methods  
 MATH 5307: Mathematical Analysis I  
 MATH 5308: Mathematical Analysis II  
 MATH 5333: Linear Algebra and Matrices  
 MATH 5336: Concepts and Techniques in Number Theory  
 MATH 5337: Concepts and Techniques in Calculus  
 MATH 5340: Concepts and Techniques in Discrete Mathematics  
 MATH 5347: Concepts and Techniques in Modeling and Applications  
 MATH 5348: Advanced Algebra in Secondary School Mathematics  
 MATH 5352: Concepts and Techniques in Precalculus  
 MATH 5380: Seminar - Study of Current Mathematics Topics  
 MATH 5392: Selected Topics in Mathematics

### Certificate of Applied Statistics Requirements

The Certificate in Applied Statistics offers individuals with an undergraduate degree an opportunity to receive graduate instruction in applied statistics as a means of maintaining and enhancing their professional development. The certificate program will provide coursework in statistics to an individual whose undergraduate major was outside the area of statistics. Since the requirements for the certificate are substantially less than those for the Master's Degree in Mathematics with a concentration in Statistics, the certificate can be earned in a much shorter time span.

The Certificate in Applied Statistics requires that the students take and successfully complete the following courses.

1: Required Courses (2):

STATS 5312: Mathematical Statistics I  
 STATS 5313: Mathematical Statistics II

2: Electives (3 courses chosen from the following list of courses)

STATS 5305: Statistical Methods  
 STATS 5314: Experimental Design  
 STATS 5353: Applied Linear Model  
 STATS 5356: Applied Multivariate Statistical Analysis  
 STATS 5357: Sample Surveys  
 STATS 5358: Regression Analysis  
 MATH 5392: Selected Topics in Statistical Quality Control  
 MATH 5392: Selected Topics in Statistical Methods in Clinical Research

Upon completion of the 15 hours of graduate courses from lists 1 and 2 with a minimum GPA of 3.0, the student is awarded the Certificate in Applied Statistics. The expected time to completion is 1 to 2 years. The time limit for completion of the certificate program is 6 years.

### Ph.D. Degree Requirements

A dynamic program leading to the Doctor of Philosophy degree in the mathematics will aim at both real and demonstrated competency on the part of the student over material from various branches of mathematics. The Doctor of Philosophy degree in Mathematics provides a program of study that may be tailored to meet the needs of those interested in applied or academic careers. This program allows students to pursue topics ranging from traditional mathematics studies to applied mathematical problems in engineering and sciences. The nature of the dissertation will range from research in mathematics to the discovery and testing of mathematical models for analyzing given problems in engineering and sciences and in locating and developing mathematical and computational techniques for deducing the properties of these models as to solve these problems effectively and efficiently. Such dissertations will be concerned with research problems from pure mathematics, applied mathematics, mathematics education and statistics.

The Department of Mathematics offers doctoral degree programs in Mathematics (algebra, applied mathematics, geometry, mathematics education, numerical analysis and statistics).

All doctoral students must complete one of the following:

1. General MATHEMATICS core requirements:

- MATH 5308: Mathematical Analysis II
- MATH 5317: Real Analysis
- MATH 5320: Ordinary Differential Equations
- MATH 5322: Complex Variables
- MATH 5327: Functional Analysis I
- MATH 5331: Abstract Algebra I
- One of the following four courses:
  - MATH 5319: Probability Theory
  - MATH 5321: Partial Differential Equations
  - MATH 5334: Differential Geometry
  - MATH 5339: Numerical Analysis II

In addition to the mathematics core requirements, the student is required to take three area-related courses.

2. General STATISTICS core requirements:

- MATH 5308: Mathematical Analysis II
- MATH 5312: Mathematical Statistics I
- MATH 5313: Mathematical Statistics II
- MATH 5314: Experimental Design
- MATH 5317: Real Analysis
- MATH 5319: Probability Theory
- MATH 5322: Complex Variables or MATH 5327: Functional Analysis I
- MATH 5356: Applied Multivariate Statistical Analysis

In addition to the statistics core requirements, the student is also required to take two statistics courses from MATH 5311, 5318, 5353, 5354, 5357, 5358, 5359, 6353, 6356, 6357.

Students in every degree plan must pass the preliminary and comprehensive examinations.

### Ph.D. Degree Requirements for the B.S.-Ph.D. track

The student must complete either the mathematics or statistics core requirements.

1. General MATHEMATICS core requirements:

- MATH 5307: Mathematical Analysis I
- MATH 5308: Mathematical Analysis II
- MATH 5317: Real Analysis
- MATH 5320: Ordinary Differential Equations
- MATH 5322: Complex Variables
- MATH 5327: Functional Analysis I
- MATH 5331: Abstract Algebra I
- MATH 5333: Linear Algebra
- One of the following four courses:
  - MATH 5319: Probability Theory
  - MATH 5321: Partial Differential Equations
  - MATH 5334: Differential Geometry



- MATH 5339: Numerical Analysis II

In addition to the mathematics core requirements, the student is required to take three area-related courses.

2. General STATISTICS core requirements:

- MATH 5307: Mathematical Analysis I
- MATH 5308: Mathematical Analysis II
- MATH 5312: Mathematical Statistics I
- MATH 5313: Mathematical Statistics II
- MATH 5314: Experimental Design
- MATH 5317: Real Analysis
- MATH 5319: Probability Theory
- MATH 5322: Complex Variables or MATH 5327: Functional Analysis I
- MATH 5333: Linear Algebra
- MATH 5356: Applied Multivariate Statistical Analysis

In addition to the statistics core requirements, the student is also required to take two statistics courses from MATH 5311, 5318, 5353, 5354, 5357, 5358, 5359, 6353, 6356, 6357.

The requirements for the preliminary and comprehensive examinations are the same as the other tracks in the Ph.D. program.

For additional information on the mathematics program, see the program entry in the Interdepartmental and Intercampus Programs section of this catalog.

## MATH Courses

### MATH5191 – SEMINAR FOR TEACHING ASSISTANTS

0 Lecture Hours · 1 Lab Hour

This course is mandatory for all mathematics graduate teaching assistants. Students will be instructed on classroom procedures and strategies and will be required to deliver lectures under the supervision of math faculty. The purpose is to develop students to be effective lecturers. Admittance to this course is restricted to Math TAs.

### MATH5300 – INTRODUCTION TO SCIENTIFIC COMPUTING

3 Lecture Hours · 0 Lab Hours

Introduction to scientific computing utilizing algorithmic languages and operating environment such as Fortran, MATLAB, C, and C and UNIX (LINUX) operating system. Prerequisite: consent of the instructor.

### MATH5302 – FUNDAMENTALS OF MATHEMATICAL SCIENCES I

3 Lecture Hours · 0 Lab Hours

Matrices and operators, linear spaces, multivariable calculus, dynamical systems, applications. Prerequisites: MATH 3318 and 3330 or consent of the instructor.

### MATH5303 – FUNDAMENTALS OF MATHEMATICAL SCIENCES II

3 Lecture Hours · 0 Lab Hours

Wave propagation, potential theory, complex variables, transform techniques, perturbation techniques, diffusion, applications. Prerequisite: MATH 5302 or consent of the instructor.

### MATH5304 – GENERAL TOPOLOGY

3 Lecture Hours · 0 Lab Hours

Introduction to fundamentals of general topology. Topics include product spaces, the Tychonoff theorem, Tietzes Extension theorem, and metrization theorems. Prerequisite: MATH 4304 or 4335.

### **MATH5305 – STATISTICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Topics include descriptive statistics, numeracy, and report writing; basic principles of experimental design and analysis; regression analysis; data analysis using the SAS package. Prerequisite: consent of the instructor.

### **MATH5307 – MATHEMATICAL ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Elements of topology, real and complex numbers, limits, continuity, and differentiation, functions of bounded variation, Riemann-Stieltjes integrals. Prerequisite: MATH 4335 or consent of Graduate Advisor.

### **MATH5308 – MATHEMATICAL ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

Analysis in  $R^n$ , limits, continuity, Jacobian, extremum problems, multiple integrals, sequences and series of functions, Lebesgue integral. Prerequisite: MATH 5307 or consent of Graduate Advisor.

### **MATH5310 – MATHEMATICAL GAME THEORY**

**3** Lecture Hours · **0** Lab Hours

Two person null sum games. Bimatrix games and Nash equilibrium points. Noncooperative games, existence theorem. Cooperative games, core, Shapley value, the nucleolus. Cost allocation. Market games. Simple games and voting. Prerequisite: MATH 5330.

### **MATH5311 – APPLIED PROBABILITY AND STOCHASTIC PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Topics include conditional expectations, law of large numbers and central limit theorem, stochastic processes, including Poisson, renewal, birth-death, and Brownian motion. Prerequisite: MATH 3313 or equivalent.

### **MATH5312 – MATHEMATICAL STATISTICS I**

**3** Lecture Hours · **0** Lab Hours

Basic probability theory, random variables, expectation, probability models, generating functions, transformations of random variables, limit theory. Prerequisite: MATH 5307 or concurrent registration or consent of instructor.

### **MATH5313 – MATHEMATICAL STATISTICS II**

**3** Lecture Hours · **0** Lab Hours

Theories of point estimation (minimum variance unbiased and maximum likelihood), interval estimation and hypothesis testing (Neyman-Pearson and likelihood ratio tests), regression analysis and Bayesian inference. Prerequisite: MATH/STATS 5312.

### **MATH5314 – EXPERIMENTAL DESIGN**

**3** Lecture Hours · **0** Lab Hours

This course covers the classical theory and methods of experimental design, including randomization, blocking, one-way and factorial treatment structures, confounding, statistical models, analysis of variance tables and multiple comparisons procedures. Prerequisite: MATH/STATS 5305 or MATH/STATS 5355 or permission of instructor.

### **MATH5315 – GRAPH THEORY**

**3** Lecture Hours · **0** Lab Hours

Algorithms for problems on graphs. Trees, spanning trees, connectedness, fundamental circuits. Eulerian graphs and Hamiltonian graphs. Graphs and vector spaces, matrices of a graph. Covering and coloring. Flows. Prerequisite: MATH 3314.

### **MATH5316 – COMBINATORIAL OPTIMIZATION**

3 Lecture Hours · 0 Lab Hours

Shortest paths. Minimum weight spanning trees and matroids. Matchings and optimal assignment. Connectivity. Flows in networks, applications. Prerequisite: MATH 3314.

### **MATH5317 – REAL ANALYSIS FOR THE MATHEMATICAL SCIENCES**

3 Lecture Hours · 0 Lab Hours

Sigma-fields, measures, measurable functions, convergence in measure and almost everywhere, integration, Fatou's Lemma, Lebesgue-dominated convergence, signed measures, Radon-Nikodym Theorem, product measures, Fubini's Theorem. Prerequisite: MATH 5308.

### **MATH5318 – FUNDAMENTALS OF STOCHASTIC ANALYSIS**

3 Lecture Hours · 0 Lab Hours

General properties of stochastic processes, processes with independent increments, martingales, limit theorems including invariance principle, Markov processes, stochastic integral, stochastic differential. Prerequisite: MATH 5308.

### **MATH5319 – PROBABILITY THEORY**

3 Lecture Hours · 0 Lab Hours

Probability spaces, random variables, filtrations, conditional expectations, martingales, strong law of large numbers, ergodic theorem, central limit theorem, Brownian motion and its properties. Prerequisite: MATH 5308.

### **MATH5320 – APPLIED DIFFERENTIAL EQUATIONS**

3 Lecture Hours · 0 Lab Hours

Fundamentals of the theory of systems of ordinary differential equations: existence, uniqueness, and continuous dependence of solutions on data; linear equations, stability theory and its applications, periodic and oscillatory solutions. Prerequisite: MATH 5307 and 5333.

### **MATH5321 – APPLIED PARTIAL DIFFERENTIAL EQUATIONS**

3 Lecture Hours · 0 Lab Hours

General first order equations. Basic linear theory for elliptic, hyperbolic, and parabolic second order equations, including existence and uniqueness for initial and boundary value problems. Prerequisites: MATH 5307 and 5333.

### **MATH5322 – COMPLEX VARIABLES I**

3 Lecture Hours · 0 Lab Hours

Fundamental theory of analytic functions, residues, conformal mapping and applications. Prerequisite: MATH 5307.

### **MATH5325 – ALGEBRAIC NUMBER THEORY**

3 Lecture Hours · 0 Lab Hours

Field extensions, number fields and number rings, ramification theory, class groups, elliptic curves and their group structure, applications to Fermat's last theorem. Prerequisite: MATH 3321.

### **MATH5326 – ALGEBRAIC TOPOLOGY**

3 Lecture Hours · 0 Lab Hours

Fundamental groups, covering space, singular homology, relative homology, Mayer-Vietoris sequence, Betti numbers, Euler characteristic. Prerequisites: MATH 3321, MATH 3335.

### **MATH5327 – FUNCTIONAL ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Introduction to Hilbert and Banach spaces: Hahn-Banach, Banach-Steinhaus, and closed graph theorems. Riesz representation theorem and bounded linear operators in Hilbert space. Prerequisite: MATH 5308.

### **MATH5328 – FUNCTIONAL ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

The theory of distributions and Sobolev spaces, with applications to differential equations. Compact operators and Fredholm theory. Spectral theory for unbounded operators. Prerequisite: MATH 5327.

### **MATH5329 – HOMOLOGICAL ALGEBRA**

**3** Lecture Hours · **0** Lab Hours

Projective and injective modules, projective and injective resolutions, Hom and tensor, the language of category theory, derived functors, Ext and Tor, complexes.

### **MATH5330 – ALGEBRAIC GEOMETRY**

**3** Lecture Hours · **0** Lab Hours

Theory of ideals in polynomial rings, Nullstellensatz, Hilbert's basis theorem, computation in polynomial rings, affine and projective varieties, singular and smooth points on varieties. Prerequisite: MATH 4321.

### **MATH5331 – ABSTRACT ALGEBRA I**

**3** Lecture Hours · **0** Lab Hours

Zorn's Lemma, groups, including free groups and dihedral groups. Rings including factorization, localization, rings of polynomials, and formal power series. An introduction to modules. Prerequisite: MATH 3321.

### **MATH5332 – ABSTRACT ALGEBRA II**

**3** Lecture Hours · **0** Lab Hours

Modules, including free, projective, and injective. Exact sequences and tensor products of modules. Chain conditions, primary decomposition, Noetherian rings and modules. Prerequisite: MATH 5331.

### **MATH5333 – LINEAR ALGEBRA AND MATRICES**

**3** Lecture Hours · **0** Lab Hours

Vector spaces, their sums, linear (in)dependence, bases, linear maps and their matrices, change of basis, inner-products, adjoints, diagonalization, eigenvectors and generalized eigenvectors, eigenvalues, Jordan form, characteristic and minimal polynomials, dual vector spaces, bilinear and quadratic forms. Prerequisite: MATH 3330 or consent of instructor.

### **MATH5334 – DIFFERENTIAL GEOMETRY**

**3** Lecture Hours · **0** Lab Hours

Introduction to the theory of curves and surfaces in three dimensional Euclidean space. Prerequisite: MATH 4334 or 4335.

### **MATH5336 – CONCEPTS AND TECHNIQUES IN NUMBER THEORY**

**3** Lecture Hours · **0** Lab Hours

Topics include mathematical induction, fundamental theorem of arithmetic, inequalities, special sequences and sums, divisibility properties, greatest common divisor, division and Euclidean algorithm, properties of congruence and Diophantine equations.

## **MATH5337 – CONCEPTS AND TECHNIQUES IN CALCULUS**

**3** Lecture Hours · **0** Lab Hours

Topics studied include limits, continuity, differentiation, integration, numerical approximations, applications and Taylor series.

## **MATH5338 – NUMERICAL ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Solution of equations including linear and nonlinear systems, interpolation and approximation, spline, numerical differentiation and quadrature. Prerequisite: MATH 2425 or consent of the instructor.

## **MATH5339 – NUMERICAL ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

Rigorous treatment of numerical aspects of linear algebra and numerical solution of ordinary differential equations, boundary value problems, introduction to numerical solution of partial differential equations. Prerequisite: MATH 5338 or consent of the instructor.

## **MATH5340 – CONCEPTS AND TECHNIQUES IN DISCRETE MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Topics include functions, mathematical induction, principles of counting, combinatorics, sequences and recurrence relations, and finite graph theory.

## **MATH5341 – CONCEPTS AND TECHNIQUES IN GEOMETRY**

**3** Lecture Hours · **0** Lab Hours

Selected materials from geometry.

## **MATH5342 – CONCEPTS AND TECHNIQUES IN ALGEBRA**

**3** Lecture Hours · **0** Lab Hours

Selected materials from algebra.

## **MATH5343 – CONCEPTS AND TECHNIQUES IN PROBABILITY AND STATISTICS**

**3** Lecture Hours · **0** Lab Hours

Consideration of (1) exploring data: descriptive statistics of situations involving one and two variables; (2) anticipating patterns: probability and simulation; (3) design of experiments and planning a study; (4) statistical inference: confirming models. Use of a graphing calculator and other appropriate technology.

## **MATH5344 – MATHEMATICS-SPECIFIC TECHNOLOGIES**

**3** Lecture Hours · **0** Lab Hours

Focus on use of current mathematics-specific technologies for enhancing mathematical understanding and mathematics teaching. May include use of Geometer's Sketchpad, Fathom, graphing calculators and computer algebra systems.

## **MATH5345 – CONCEPTS AND TECHNIQUES IN ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Selected materials from analysis including concepts and topics consistent with precalculus and elementary calculus. Prerequisite: MATH 5337 or consent of the instructor.

## **MATH5346 – CONCEPTS AND TECHNIQUES IN PROBLEM SOLVING**

**3 Lecture Hours · 0 Lab Hours**

A study of the application of various heuristics and general problem strategies in mathematics, with application to the teaching and learning of secondary school and college-level mathematics. Topics include analyzing, classifying, and modifying tasks, assessment of problem solving, and implementing problem solving in the classroom. Assignments require interaction in secondary school or college field settings.

### **MATH5347 – CONCEPTS AND TECHNIQUES IN MATHEMATICAL MODELING WITH APPLICATIONS**

**3 Lecture Hours · 0 Lab Hours**

Topics studied include algebraic, graphical, geometrical and numerical techniques to model and solve applied problems.

### **MATH5348 – ADVANCED ALGEBRA IN SECONDARY SCHOOL MATHEMATICS**

**3 Lecture Hours · 0 Lab Hours**

Major concepts of second-year algebra applied to the teaching and learning of secondary school mathematics. Topics include relations, algebraic, tabular, verbal and geometric representations of functions, transformations, including applications involving systems of equations and inequalities.

### **MATH5350 – APPLIED MATHEMATICS I**

**3 Lecture Hours · 0 Lab Hours**

Development of models arising in the natural sciences and in engineering. Emphasis will be on the mathematical techniques and theory needed to analyze such models; these include aspects of the theory of differential and integral equations, boundary value problems, theory of distributions and transforms. Prerequisites: MATH 5307 and 5333.

### **MATH5351 – APPLIED MATHEMATICS II**

**3 Lecture Hours · 0 Lab Hours**

Continuation of MATH 5350; models arising in the physical sciences whose analysis includes such topics as the theory of operators in a Hilbert space, variational principles, branching theory, perturbation and stability analysis. Prerequisite: MATH 5350.

### **MATH5352 – CONCEPTS AND TECHNIQUES IN PRECALCULUS**

**3 Lecture Hours · 0 Lab Hours**

Topics include functions (transcendental, inverse, parametric, polar, transformations), asymptotic behavior, conics, sequences, complex numbers.

### **MATH5353 – APPLIED LINEAR MODELS**

**3 Lecture Hours · 0 Lab Hours**

The course covers, at an operational level, three topics: 1) the univariate linear model, including a self-contained review of the relevant distribution theory, basic inference methods, several parameterizations for experimental design and covariate-adjustment models and applications, and power calculation; 2) the multivariate linear model, including basic inference (e.g. the four forms of test criteria and simultaneous methods), applications to repeated measures experiments and power calculation; and 3) the univariate mixed model, including a discussion of the likelihood function and its maximization, approximate likelihood inference, and applications to complex experimental designs, missing data, unbalanced data, time series observations, variance component estimation, random effects estimation, power calculation and a comparison of the mixed model's capabilities relative to those of the classical multivariate model. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis) or equivalent.

### **MATH5354 – CATEGORICAL DATA ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

This course covers classical methods for analyzing categorical data from a variety of response/factor

structures (univariate or multivariate responses, with or without multivariate factors), based on several different statistical rationales (weighted least squares, maximum likelihood and randomization-based). Included are logistic regression, multiple logit analysis, mean scores analysis, observer agreement analysis, association measures, methods for complex experimental designs with categorical responses and Poisson regression. The classical log-linear model for the association structure of multivariate responses is briefly reviewed. Randomization-based inference (e.g. Mantel-Haenzel) is discussed as well. The necessary distribution theory (multinomial, asymptotics of weighted least squares and maximum likelihood) are discussed at an operational level. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis).

### **MATH5355 – STATISTICAL THEORY FOR RESEARCH WORKERS**

**3** Lecture Hours · **0** Lab Hours

Designed for graduate students not majoring in mathematics. Topics include basic probability theory, distributions of random variables, point estimation, interval estimation, testing hypotheses, regression, and an introduction to analysis of variance. Graduate credit not given to math majors. Prerequisite: calculus math1426/math2425/math2326 or permission of instructor.

### **MATH5356 – APPLIED MULTIVARIATE STATISTICAL ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Statistical analysis for data collected in several variables, topics including sampling from multivariate normal distribution, Hotelling's  $T^2$ , multivariate analysis of variance, discriminant analysis, principal components, and factor analysis. Prerequisite: MATH/STATS 5312 or consent of instructor.

### **MATH5357 – SAMPLE SURVEYS**

**3** Lecture Hours · **0** Lab Hours

A comprehensive account of sampling theory and methods, illustrations to show methodology and practice, simple random sampling, stratified random sample, ratio estimates, regression estimates, systematic sampling, cluster sampling, and nonsampling errors. Prerequisite: MATH/STATS 5312 or consent of instructor.

### **MATH5358 – REGRESSION ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A comprehensive course including multiple linear regression, non-linear regression and logistic regression. Emphasis is on modeling, inference, diagnostics and application to real data sets. The course begins by developing a toolbox of methods via a sequence of guided homework assignments. It culminates with projects based on consulting-level data analysis problems involving stratification, covariate adjustment and messy data sets. Some knowledge of the SAS package is required. Prerequisites: MATH/STATS 5305, basic knowledge of matrices.

### **MATH5359 – SURVIVAL ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

This course covers analysis of lifetime data, which has applications to actuarial science and health fields. Topics include the survivor function, hazard function, censoring, parametric regression models (e.g. the weibull), nonparametric regression models (e.g. the Cox proportional hazards model), categorical survival data methods, competing risks and methods for multivariate survival data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed if they have some basic calculus-based probability, such as MATH 3313).

### **MATH5361 – APPLIED CALCULUS OF VARIATION**

**3** Lecture Hours · **0** Lab Hours

Functionals, variation, extremization, Euler's equation, direct and indirect approximation methods; applications to mechanics and control theory. Prerequisite: MATH 5302.

### **MATH5362 – MATHEMATICS OF LINEAR PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours



The simplex method and the revised simplex method. Linear algebra for polyhedra and polytopes. Duality theory. Sensitivity analysis. Applications to transportation problems, network flow problems, matrix-games and scheduling problems. Integer programming. Quadratic programming. Prerequisite: MATH 3330.

### **MATH5363 – OSCILLATIONS AND WAVES**

**3** Lecture Hours · **0** Lab Hours

Development of methods and results related to phenomena in nature that exhibit oscillatory motion; mathematical techniques include Fourier series, ordinary and partial differential equations, and the theory of almost periodic functions. Prerequisite: MATH 3318.

### **MATH5364 – INTRODUCTION TO MATHEMATICAL CONTROL THEORY**

**3** Lecture Hours · **0** Lab Hours

Systems in science, engineering, and economics and their mathematical description by means of functional equations (ordinary, partial, integral, delay-type). Basic properties of various classes of systems: observability, controllability, stability, and oscillating systems; optimal control problems and applications. Prerequisite: MATH 3318 or 4320.

### **MATH5365 – BIOMATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Mathematical techniques used in modeling such as perturbation theory, dimensional analysis, Fourier analysis, and differential equations. Applications to morphogenetics, population dynamics, compartmental systems, and chemical kinetics.

### **MATH5366 – INTRODUCTION TO NEURAL AND COGNITIVE MODELING**

**3** Lecture Hours · **0** Lab Hours

Principles of neural network modeling; application of these principles to the simulation of cognitive processes in both brains and machines; models of associative learning, pattern recognition, and classification. Prerequisite: consent of instructor.

### **MATH5370 – PROBLEM SOLVING IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

A study of the nature and aspects of problem solving in mathematics, with application to the teaching and learning of K-8 mathematics. Topics include deconstructing and modifying tasks, assessment of problem solving, and the roles of representation, conjecture & proof, and technology in problem solving. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5371 – APPLIED NUMERICAL LINEAR ALGEBRA**

**3** Lecture Hours · **0** Lab Hours

Numerical solutions of linear algebraic systems, least squares problems, and eigenvalue problems; LU and QR decompositions, Schur and Singular Value decompositions, Gaussian elimination, QR algorithm, and Krylov subspace iterations for large and sparse linear algebra problems. Prerequisites: MATH 3330 or consent of the instructor.

### **MATH5372 – OPTIMIZATION METHODS & NUMERICAL SOLUTIONS OF NONLINEAR EQUATIONS**

**3** Lecture Hours · **0** Lab Hours

Unconstrained and constrained optimization, solutions of nonlinear system of equations; Newton and quasi-Newton methods, secant methods and variations, nonlinear least squares problems. Prerequisite: MATH 5308 or consent of the instructor.

### **MATH5373 – NUMERICAL SOLUTION OF ORDINARY DIFFERENTIAL EQUATIONS**

**3** Lecture Hours · **0** Lab Hours



Numerical methods for approximating solutions of initial value problems, boundary value problems, including linear multistep methods, Runge-Kutta methods, shooting methods. Prerequisite: MATH 5300, 3319 or consent of instructor.

### **MATH5374 – NUMERICAL SOLUTION OF PARTIAL DIFFERENTIAL EQUATIONS**

**3** Lecture Hours · **0** Lab Hours

Numerical methods for elliptic, parabolic, hyperbolic, mixed, and systems of partial differential equations; finite difference methods, finite element methods, spectral methods. Prerequisite: MATH 5373 or consent of instructor.

### **MATH5375 – CONSTRUCTING WHOLE NUMBER AND OPERATIONS IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

A study of the interaction between the structure of place-value numeration systems and the nature of the four arithmetic operations. The development of traditional and alternative computational arithmetic algorithms from conceptual and concrete models for operations, viewed through the lens of alternative numeration systems and research on children's mathematical thinking. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5376 – CONSTRUCTING RATIONAL NUMBER AND OPERATIONS IN K-8 MATH**

**3** Lecture Hours · **0** Lab Hours

The meanings and representations of rational numbers, and the development of computations on rational numbers from algorithms for whole numbers, including concrete models for operations on fractions and decimals. Discussion of research on the learning and teaching of operations on rational numbers. Also, divisibility tests and factoring. Assignments require interaction in K-8 field settings. Prerequisite: MATH 5375.

### **MATH5377 – ALGEBRAIC THINKING IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

A study of the practice of making and justifying generalizations in K-8 mathematics, including field properties of operations, modular arithmetic (with applications to odd/even), relations and equivalence relations, the introduction and use of variables and unknowns, and the influence of representations on the form of mathematical arguments. Assignments require interaction in K-8 field settings. Prerequisite: MATH 5375.

### **MATH5378 – GEOMETRY CONCEPTS IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Major concepts of geometry applied to the teaching and learning of K-8 mathematics. Topics include dimension, development of definitions, meanings of angle, geometric comparison relations, notions of center, and non-Euclidean geometries. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5379 – MEASUREMENT CONCEPTS IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

The development of measurement concepts as applied to the teaching and learning of K-8 mathematics. Topics include the development and properties of standard and nonstandard units, notions of size, decomposing space, relationships between boundaries and interiors, the algebra of units, measuring time, and notions of heaviness. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5380 – SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Current topics in mathematics, may be repeated for credit twice. Prerequisite: consent of instructor.

### **MATH5391 – SPECIAL TOPICS IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Topics in mathematics assigned individual students or small groups. Faculty members closely supervise the students in their research and study. In areas where there are only three hours offered, the special topics may be used by students to continue their study in the same area. Graded P/F/R. Prerequisite: permission of instructor.

### **MATH5392 – SELECTED TOPICS IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

May vary from semester to semester depending upon need and interest of the students. May be repeated for credit. Prerequisite: permission of Graduate Advisor.

### **MATH5395 – SPECIAL PROJECT**

**3** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: permission of Graduate Advisor.

### **MATH5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

5398 Graded R/F only; 5698 graded P/F/R. Prerequisite: permission of Graduate Advisor.

### **MATH5399 – RESEARCH IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Faculty directed individual study and research. May be repeated for credit. Graded P/F/R/W only. Prerequisite: permission of instructor.

### **MATH5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: permission of Graduate Advisor.

### **MATH5699 – RESEARCH IN MATHEMATICS**

**6** Lecture Hours · **0** Lab Hours

Faculty directed individual study and research. May be repeated for credit. Graded P/F/R/W only. Prerequisite: permission of instructor.

### **MATH5999 – RESEARCH IN MATHEMATICS**

**9** Lecture Hours · **0** Lab Hours

Faculty directed individual study and research. May be repeated for credit. Graded P/F/R/W only. Prerequisite: permission of instructor.

### **MATH6180 – SEMINAR FOR PROFESSIONAL DEVELOPMENT OF PHD STUDENTS IN SPECIAL PROJECTS**

**1** Lecture Hour · **0** Lab Hours

This seminar class is for Ph.D. students enrolled in special University projects. Topics include a survey of new Math, Science, Technology and Engineering advancements, Ph.D. students professional development and mentoring. Prerequisite: Prior approval of Project Director.

### **MATH6313 – TOPICS IN PROBABILITY AND STATISTICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when the content changes.

### **MATH6353 – GENERALIZED LINEAR MODELS**

3 Lecture Hours · 0 Lab Hours

This course covers modern methods for analyzing Bernoulli, multinomial and count data. It begins with a development of generalized linear model theory, including the exponential family, link function and maximum likelihood. Second is a discussion of the case of models for independent observations. Next is a discussion of models for repeated measures, based on quasi-likelihood methods. These include models (such as Markov chains) for categorical time series. Next is a treatment of models with random effects. Finally is a discussion of methods for handling missing data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed but must deal with the slightly higher mathematical level of this course.)

### **MATH6356 – TIME SERIES ANALYSIS**

3 Lecture Hours · 0 Lab Hours

This course covers classical methods of time series analysis, for both the time and frequency domains. For covariance stationary series, these include ARIMA modeling and spectral analysis. For nonstationary series, they include methods for detrending and filtering. Also included is a treatment of multivariate series, as well as a discussion of the Kalman filter state-space model. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and MATH/STATS 5313.

### **MATH6357 – NONPARAMETRIC STATISTICS**

3 Lecture Hours · 0 Lab Hours

This is a survey of classical nonparametric methods for inference in standard observational settings (one-sample, two-sample, k-samples and the univariate linear model), and includes a development of U-statistics, rank statistics and their asymptotic distribution theory. The mathematical level is fairly high. Prerequisite: MATH/STATS 5313.

### **MATH6391 – SPECIAL TOPICS IN MATHEMATICS**

3 Lecture Hours · 0 Lab Hours

Faculty directed individual study and research. May be repeated for credit when the content changes.

### **MATH6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree in mathematics.

### **MATH6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree in mathematics.

### **MATH6999 – DISSERTATION**

9 Lecture Hours · 0 Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree in mathematics.

### **MATH7399 – DOCTORAL DEGREE COMPLETION**

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours

may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## MSCI Courses

### MSCI6399 – DISSERTATION

3 Lecture Hours · 0 Lab Hours

### MSCI6699 – DISSERTATION

6 Lecture Hours · 0 Lab Hours

### MSCI6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

### MSCI7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## STATS Courses

### STATS5305 – STATISTICAL METHODS

3 Lecture Hours · 0 Lab Hours

Topics include descriptive statistics, numeracy, and report writing; basic principles of experimental design and analysis; regression analysis; data analysis using the SAS package. Prerequisite: consent of the instructor.

### STATS5312 – MATHEMATICAL STATISTICS I

3 Lecture Hours · 0 Lab Hours

Basic probability theory, random variables, expectation, probability models, generating functions, transformations of random variables, limit theory. Prerequisite: MATH 5307 or concurrent registration or consent of instructor.

### STATS5313 – MATHEMATICAL STATISTICS II

3 Lecture Hours · 0 Lab Hours

Theories of point estimation (minimum variance unbiased and maximum likelihood), interval estimation and hypothesis testing (Neyman-Pearson and likelihood ratio tests), regression analysis and Bayesian inference. Prerequisite: MATH/STATS 5312.

**STATS5314 – EXPERIMENTAL DESIGN****3** Lecture Hours · **0** Lab Hours

This course covers the classical theory and methods of experimental design, including randomization, blocking, one-way and factorial treatment structures, confounding, statistical models, analysis of variance tables and multiple comparisons procedures. Prerequisite: MATH/STATS 5305 or MATH/STATS 5355 or permission of instructor.

**STATS5353 – APPLIED LINEAR MODELS****3** Lecture Hours · **0** Lab Hours

The course covers, at an operational level, three topics: 1) the univariate linear model, including a self-contained review of the relevant distribution theory, basic inference methods, several parameterizations for experimental design and covariate-adjustment models and applications, and power calculation; 2) the multivariate linear model, including basic inference (e.g. the four forms of test criteria and simultaneous methods), applications to repeated measures experiments and power calculation; and 3) the univariate mixed model, including a discussion of the likelihood function and its maximization, approximate likelihood inference, and applications to complex experimental designs, missing data, unbalanced data, time series observations, variance component estimation, random effects estimation, power calculation and a comparison of the mixed model's capabilities relative to those of the classical multivariate model. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis) or equivalent.

**STATS5354 – CATEGORICAL DATA ANALYSIS****3** Lecture Hours · **0** Lab Hours

This course covers classical methods for analyzing categorical data from a variety of response/factor structures (univariate or multivariate responses, with or without multivariate factors), based on several different statistical rationales (weighted least squares, maximum likelihood and randomization-based). Included are logistic regression, multiple logit analysis, mean scores analysis, observer agreement analysis, association measures, methods for complex experimental designs with categorical responses and Poisson regression. The classical log-linear model for the association structure of multivariate responses is briefly reviewed. Randomization-based inference (e.g. Mantel-Haenzel) is discussed as well. The necessary distribution theory (multinomial, asymptotics of weighted least squares and maximum likelihood) are discussed at an operational level. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis).

**STATS5355 – STATISTICAL THEORY FOR RESEARCH WORKERS****3** Lecture Hours · **0** Lab Hours

Designed for graduate students not majoring in mathematics. Topics include basic probability theory, distributions of random variables, point estimation, interval estimation, testing hypotheses, regression, and an introduction to analysis of variance. Graduate credit not given to math majors. Prerequisite: calculus math1426/math2425/math2326 or permission of instructor.

**STATS5356 – APPLIED MULTIVARIATE STATISTICAL ANALYSIS****3** Lecture Hours · **0** Lab Hours

Statistical analysis for data collected in several variables, topics including sampling from multivariate normal distribution, Hotelling's  $T^2$ , multivariate analysis of variance, discriminant analysis, principal components, and factor analysis. Prerequisite: MATH/STATS 5312 or consent of instructor.

**STATS5357 – SAMPLE SURVEYS****3** Lecture Hours · **0** Lab Hours

A comprehensive account of sampling theory and methods, illustrations to show methodology and practice, simple random sampling, stratified random sample, ratio estimates, regression estimates, systematic sampling, cluster sampling, and nonsampling errors. Prerequisite: MATH/STATS 5312 or consent of instructor.

**STATS5358 – REGRESSION ANALYSIS****3** Lecture Hours · **0** Lab Hours

A comprehensive course including multiple linear regression, non-linear regression and logistic regression. Emphasis is on modeling, inference, diagnostics and application to real data sets. The course begins by developing a toolbox of methods via a sequence of guided homework assignments. It culminates with projects based on consulting-level data analysis problems involving stratification, covariate adjustment and messy data sets. Some knowledge of the SAS package is required. Prerequisites: MATH/STATS 5305, basic knowledge of matrices.

### STATS5359 – SURVIVAL ANALYSIS

3 Lecture Hours · 0 Lab Hours

This course covers analysis of lifetime data, which has applications to actuarial science and health fields. Topics include the survivor function, hazard function, censoring, parametric regression models (e.g. the weibull), nonparametric regression models (e.g. the Cox proportional hazards model), categorical survival data methods, competing risks and methods for multivariate survival data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed if they have some basic calculus-based probability, such as MATH 3313).

### STATS6353 – GENERALIZED LINEAR MODELS

3 Lecture Hours · 0 Lab Hours

This course covers modern methods for analyzing Bernoulli, multinomial and count data. It begins with a development of generalized linear model theory, including the exponential family, link function and maximum likelihood. Second is a discussion of the case of models for independent observations. Next is a discussion of models for repeated measures, based on quasi-likelihood methods. These include models (such as Markov chains) for categorical time series. Next is a treatment of models with random effects. Finally is a discussion of methods for handling missing data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed but must deal with the slightly higher mathematical level of this course.)

### STATS6356 – TIME SERIES ANALYSIS

3 Lecture Hours · 0 Lab Hours

This course covers classical methods of time series analysis, for both the time and frequency domains. For covariance stationary series, these include ARIMA modeling and spectral analysis. For nonstationary series, they include methods for detrending and filtering. Also included is a treatment of multivariate series, as well as a discussion of the Kalman filter state-space model. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and MATH/STATS 5313.

### STATS6357 – NONPARAMETRIC STATISTICS

3 Lecture Hours · 0 Lab Hours

This is a survey of classical nonparametric methods for inference in standard observational settings (one-sample, two-sample, k-samples and the univariate linear model), and includes a development of U-statistics, rank statistics and their asymptotic distribution theory. The mathematical level is fairly high. Prerequisite: MATH/STATS 5313.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
 ©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
    - Biology
    - Chemistry & Biochemistry
    - Earth and Environmental Sciences
    - Interdisciplinary Science
    - Mathematics
    - Physics
    - Psychology
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Physics

College of Science

### Chair Alexander Weiss

Web [www.uta.edu/physics/](http://www.uta.edu/physics/)  
Phone 817.272.2266  
Fax 817.272.3637

108 Science Hall

---

### Degrees / Certificates

#### Master's Degrees

Physics, M.S.

#### Doctoral Degrees

Physics and Applied Physics, B.S. to Ph.D.  
Physics and Applied Physics, Ph.D.

---

### Graduate Faculty

[Jonathan Asaadi](#)  
[Matthew Benacquista](#)  
[Haleh Hadavand](#)  
[Fredrick Jenet](#)  
[Mingwu Jin](#)  
[Benjamin Jones](#)  
[Soma Mukherjee](#)  
[David Nygren](#)  
[Malik Rakhmanov](#)  
[Joseph Romano](#)

#### Professor

[Andrew Brandt](#)  
[Manfred Cuntz](#)  
[Kaushik De](#)  
[John Fry](#)  
[Ali Koymen](#)  
[Ping Liu](#)  
[Ramon Lopez](#)  
[Zdzislaw Musielak](#)  
[Asok Ray](#)  
[Roy Rubins](#)  
[Suresh Sharma](#)  
[Alexander Weiss](#)  
[Andrew White](#)  
[Jaehoon Yu](#)  
[Qiming Zhang](#)

#### Associate Professor



**Wei Chen**  
**Nail Fazleev**

**Assistant Professor**

**Yue Deng**  
**Amir Farbin**  
**Muhammad Huda**  
**Christopher Jackson**  
**Samarendra Mohanty**  
**Joseph Ngai**  
**Sangwook Park**

---

## Graduate Advisors

**Stacey Cody**

*Physics and Applied Physics, B.S. to Ph.D.*  
*Physics and Applied Physics, Ph.D.*

**Qiming Zhang**

*Physics, M.S.*

---

## Department Information

### Courses

# Department Information

### Objective

#### Admission Criteria

- **Master of Science Program**
- **Doctor of Philosophy Program**
- **Probationary Admission**
- **Deferred and Provisional Admission**
- **Denial of Admission**
- **Scholarships and Fellowships**

#### Degree Requirements: Master of Science

#### Degree Requirements: Doctor of Philosophy

### Objective

The objective of graduate work in physics is to prepare the student for continued professional and scholarly development as a physicist. The Physics MS Degree Programs are designed to give the student advanced training in all fundamental areas of physics through formal courses and the options of some degree of specialization or participation in original research in one of a variety of projects directed by the faculty.

The Doctor of Philosophy in Physics and Applied Physics Program combines the traditional elements of a science doctoral program with courses in specifically applied topics and internship in a technological environment. It is designed to produce highly trained professionals with a broad perspective of the subject which may prepare them equally well for careers in academia or government or industry. Current research in the department is predominantly in the areas of condensed matter physics, materials science, astro physics, space physics and high-energy



physics and includes a wide range of theoretical work in solid state physics and experimentation in laser physics, optics, positron physics, nano-bio physics, solid state and surface physics, and high-energy physics.

## Admission Criteria

### Master of Science Program

For unconditional admission to the Master of Science program in physics, the candidate must satisfy the general admission requirements of the Graduate School, including a minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School and favorable letters of recommendation from individuals able to assess the applicant's potential for success in a Masters program. In addition, the candidate should have satisfactorily completed at least 24 undergraduate hours of advanced physics and supporting courses and should have minimal GRE scores of 350 in Verbal, and 650 in Quantitative.

### Doctor of Philosophy Program

For unconditional admission to the Doctor of Philosophy program, an applicant must have a master's degree or 30 semester hours of graduate credit in physics or a related field and satisfy the general admission requirements of the Graduate School, including a minimum graduate coursework GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School and favorable letters of recommendation from individuals able to assess the applicant's potential for success in a Ph.D. program. In addition, the applicant should have minimal GRE scores of 350 in Verbal, and 650 in Quantitative.

Applicants not meeting the minimum requirements of the department or the Graduate School for either program may still be considered for unconditional acceptance if other information in their application indicates a reasonable probability of success in graduate studies in physics.

### Probationary Admission

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

### Deferred and Provisional Admission

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### Denial of Admission

A candidate may be denied admission if he or she have less than satisfactory performance on the admission criteria described above.

### Scholarships and Fellowships

Students who are admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

## Degree Requirements: Master of Science

A minimum of 30 hours is required for the Master of Science degree, of which 24 hours, including

a six hour thesis (minimum registration), will be in physics, and six hours may be selected from physics, mathematics, chemistry, earth & environmental sciences, biology, or engineering as approved by the Graduate Advisor.

## Degree Requirements: Doctor of Philosophy

Each candidate must complete the following program requirements:

1. Demonstration of competence in a minimum of 39 credit hours of core courses chosen under the guidance of the supervising committee from the following (or from courses approved in advance by the Graduate Studies Committee):

Traditional core courses:

PHYS 5306 Classical Mechanics

PHYS 5307, 5308 Quantum Mechanics I, II

PHYS 5309, 5313 Electromagnetic Theory I, II

PHYS 5310 Statistical Mechanics

PHYS 5311, 5312 Mathematical Methods in Physics I, II

PHYS 5315, 5316 Solid State I, II

Applied Physics core courses:

PHYS 5314 Advanced Optics

PHYS 5319 Mathematical Methods in Physics III

PHYS 6301, 6302, 6303 Methods of Applied Physics I, II, III

Computer Science as required by the supervising committee.

2. Dissertation and additional research and elective courses chosen under the guidance of the supervising committee.

## PHYS Courses

### PHYS5193 – READINGS IN PHYSICS

1 Lecture Hour · 0 Lab Hours

Conference course. May be repeated for credit.

### PHYS5194 – RESEARCH IN PHYSICS

1 Lecture Hour · 0 Lab Hours

Conference course with laboratory. May be repeated for credit.

### PHYS5294 – RESEARCH IN PHYSICS

2 Lecture Hours · 0 Lab Hours

Conference course with laboratory. May be repeated for credit.

### PHYS5305 – CHAOS AND NONLINEAR DYNAMICS

3 Lecture Hours · 0 Lab Hours

Introduction to basic principles and concepts of chaos theory and their applications in diverse fields of research. Topics include chaotic and non-chaotic systems, stability analysis and attractors, bifurcation theory, routes to chaos and universality in chaos, iterated maps, Lyapunov exponents, fractal dimensions, multifractals, hamiltonian chaos, quantum chaos, controlling chaos, self-organized systems, and theory of complexity.

### PHYS5306 – CLASSICAL MECHANICS

3 Lecture Hours · 0 Lab Hours

General principles of analytical mechanics, the kinematics of rigid bodies, canonical transformation, Hamilton-Jacobi theory.

### **PHYS5307 – QUANTUM MECHANICS I**

3 Lecture Hours · 0 Lab Hours

Matrix formulation, theory of radiation, angular momentum, perturbation methods.

### **PHYS5308 – QUANTUM MECHANICS II**

3 Lecture Hours · 0 Lab Hours

Approximate methods, symmetry and unitary groups, scattering theory.

### **PHYS5309 – ELECTROMAGNETIC THEORY I**

3 Lecture Hours · 0 Lab Hours

Boundary value problems in electrostatics and magnetostatics, Maxwell's equations.

### **PHYS5310 – STATISTICAL MECHANICS**

3 Lecture Hours · 0 Lab Hours

Fundamental principles of statistical mechanics, Liouville theorem, entropy, Fermi-Dirac distribution, Bose-Einstein distribution, Einstein condensation, density matrix, quantum statistical mechanics, kinetic methods, and transport theory.

### **PHYS5311 – MATHEMATICAL METHODS IN PHYSICS I**

3 Lecture Hours · 0 Lab Hours

Algebraic and analytical methods used in modern physics. Algebra: matrices, groups, and tensors, with application to quantum mechanics, the solid state, and special relativity. Analysis: vector calculus, ordinary and partial differential equations, with applications to electromagnetic and seismic wave propagation.

### **PHYS5312 – MATHEMATICAL METHODS IN PHYSICS II**

3 Lecture Hours · 0 Lab Hours

Continuation of PHYS 5311 with a selection from the following topics. Algebra: matrix representations of the symmetric and point groups of solid state physics, matrix representations of the continuous groups  $O(3)$ ,  $SU(2)$ ,  $SU(3)$ ,  $SL(2,C)$ , general covariance. Analysis: further study of analytic functions, Cauchy's theorem, Green's function techniques, orthogonal functions, integral equations.

### **PHYS5313 – ELECTROMAGNETIC THEORY II**

3 Lecture Hours · 0 Lab Hours

Modern tensorial treatment of classical electrodynamics, force on and field of a moving charge, derivation and application of 4-vector potential, Maxwell's equations in tensor form, field momentum and radiation.

### **PHYS5314 – ADVANCED OPTICS**

3 Lecture Hours · 0 Lab Hours

Electromagnetic wave equations, theory of diffraction, radiation scattering and dispersion, coherence and laser optics. Additional advanced topics of current interest.

### **PHYS5315 – SOLID STATE I**

3 Lecture Hours · 0 Lab Hours

Crystal structure, lattice vibration, thermal properties, and band theory of solids.

### **PHYS5316 – SOLID STATE II**

3 Lecture Hours · 0 Lab Hours

Electrical and magnetic properties of crystalline solids, magnetic resonance, and optical phenomena.

### **PHYS5317 – STATISTICAL MECHANICS II**

**3** Lecture Hours · **0** Lab Hours

Methods in applied statistical mechanics. Topics may include fluctuations and critical phenomena, the Ising model, the master equation, transport in solids, and chaos.

### **PHYS5319 – MATHEMATICAL METHODS IN PHYSICS III**

**3** Lecture Hours · **0** Lab Hours

Numerical methods for applied physics; computer techniques, numerical differentiation, integration, interpolation, extrapolation; differential equations, integral equations, statistical analysis; scientific computer library; artificial intelligence programming.

### **PHYS5320 – QUANTUM MECHANICS III**

**3** Lecture Hours · **0** Lab Hours

Quantum theory of radiation; relativistic equations; elements of quantum field theory; symmetries and gauge theories. Applications in elementary particle physics and solid-state physics.

### **PHYS5325 – INTRODUCTION TO ELEMENTARY PARTICLES I**

**3** Lecture Hours · **0** Lab Hours

An overview of particles and forces. Particle detectors and accelerators. Invariance principles and conservation laws. Standard model. Electromagnetic, weak, strong, and unified interactions.

### **PHYS5326 – INTRODUCTION TO ELEMENTARY PARTICLE PHYSICS II**

**3** Lecture Hours · **0** Lab Hours

Systematics of the quark model; the fundamental interactions of elementary particles; spin and relativistic kinematics; Dirac Equation; the standard electroweak model.

### **PHYS5328 – SURFACE PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Experimental and theoretical methods for the study of solid surfaces. Geometric and electronic structure of metals and semiconductors. Surfaces as model systems of reduced dimensionality. Adsorption phenomena and film growth.

### **PHYS5330 – PHYSICS OF SEMICONDUCTOR PROCESSING AND CHARACTERIZATION**

**3** Lecture Hours · **0** Lab Hours

Selection from the following topics: physics of crystal growth, lattice defects, impurity diffusion, ion-implantation, thin film growth and plasma etching. Physics of characterization techniques utilizing resistivity, carrier mobility and lifetimes, electrons, x-rays, ions, Rutherford backscattering, neutron activation analysis, positron annihilation spectroscopy, deep-level transient spectroscopy.

### **PHYS5381 – MECHANICS & HEAT FOR TEACHERS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Topics include: 1) Newton's laws of motion, gravitation, and planetary motion; 2) the basic laws of thermal and statistical physics; 3) oscillatory motion including waves and sound. Replaceable experiments will be demonstrated throughout the course.

### **PHYS5382 – ELECTROMAGNETISM FOR TEACHERS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Topics include: 1) Static charges, current flow, electric and magnetic fields; 2) simple DC/AC electrical circuits including examples from

household circuit and practical electronic devices; 3) light and optics including examples such as cameras, microscopes and telescopes. Replaceable experiments will be demonstrated throughout the course.

### **PHYS5383 – MODERN PHYSICS FOR TEACHERS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Topics include: 1) Introduction to special relativity and quantum theory; 2) light and radiation; 3) applications to modern electrical devices; 4) nuclear and particle physics.

### **PHYS5385 – PHYSICS LAB TECHNIQUES FOR TEACHERS**

**0** Lecture Hours · **3** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Experiments demonstrating various topics are covered. Experiments include gravitational acceleration heat flow, harmonic motion, sound, electric magnetic fields, electric circuits, optic, x-rays and nuclear radiation.

### **PHYS5391 – SPECIAL TOPICS IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Topics in physics, particularly from areas in which active research is being conducted, are assigned to individuals or small groups for intensive investigations. May be repeated for credit.

### **PHYS5393 – READINGS IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Conference course. May be repeated for credit.

### **PHYS5394 – RESEARCH IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Conference course with laboratory. May be repeated for credit.

### **PHYS5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **PHYS5694 – RESEARCH IN PHYSICS**

**6** Lecture Hours · **0** Lab Hours

Conference course with laboratory. May be repeated for credit.

### **PHYS5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **PHYS6301 – METHODS OF APPLIED PHYSICS I--ELECTRONICS**

**3** Lecture Hours · **0** Lab Hours

The analysis and design of electronic circuits for use in the laboratory. Transistors and integrated circuits in analog instrumentation. Digital logic. Information theory and signal processing.

### **PHYS6302 – METHODS OF APPLIED PHYSICS II--COMPUTERS IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Applications of computers in physics. Acquisition and analysis of experimental data. Vector and parallel processing, image processing, simulation.

### **PHYS6303 – METHODS OF APPLIED PHYSICS III--SPECTROSCOPY**

**3** Lecture Hours · **0** Lab Hours

The principles (interactions, cross-sections, elastic and inelastic scattering, diffraction, coherence), the methodologies (sources, detectors, visualization), and applications (structure, dynamics, composition, excitations) of neutral and charged particle spectroscopies to condensed matter physics and materials science.

### **PHYS6304 – APPLIED PHYSICS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Applied physics and engineering research and training in industry or other science or engineering departments of U.T. Arlington or other institutions requiring applied physicists. Faculty supervision and submission of technical progress reports required.

### **PHYS6391 – SELECTED TOPICS IN APPLIED PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Topics chosen from research areas in the Department of Physics or at one of the institutions or corporations participating in the traineeship program in applied physics; emphasis on industrial and engineering applications. May be repeated for credit.

### **PHYS6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

### **PHYS6604 – APPLIED PHYSICS INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

Applied physics and engineering research and training in industry or other science or engineering departments of U.T. Arlington or other institutions requiring applied physicists. Faculty supervision and submission of technical progress reports required.

### **PHYS6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

### **PHYS6904 – APPLIED PHYSICS INTERNSHIP**

**9** Lecture Hours · **0** Lab Hours

Applied physics and engineering research and training in industry or other science or engineering departments of U.T. Arlington or other institutions requiring applied physicists. Faculty supervision and submission of technical progress reports required.

### **PHYS6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

### **PHYS7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's

degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[Biology](#)

[Chemistry &  
Biochemistry](#)

[Earth and Environmental  
Sciences](#)

[Interdisciplinary Science](#)

[Mathematics](#)

[Physics](#)

[Psychology](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Psychology

College of Science

### Chair Perry Fuchs

Web [www.uta.edu/psychology/](http://www.uta.edu/psychology/)

Phone 817.272.2281

Fax 817.272.2364

[320 Life Science Bldg](#)

---

### Degrees / Certificates

#### Master's Degrees

Psychology, Experimental, M.S.

Psychology, Health/Neuroscience, M.S.

Psychology, Industrial and Organizational, M.S.

#### Doctoral Degrees

Psychology, Experimental, Health, Ph.D.

Psychology, Experimental, Ph.D.

Psychology, Health/Neuroscience, Ph.D.

---

### Graduate Faculty

[Angela Liegey-Dougall](#)

[Qing Lin](#)

[Kelsey Medeiros](#)

[Pablo Mora](#)

[Craig Nagoshi](#)

[Heekyeong Park](#)

[Amber Schroeder](#)

[Shannon Scielzo](#)

[Karen Twohey](#)

#### Assistant Professor in Practice

[Nicolette Lopez](#)

#### Professor

[Robert Gatchel](#)

[William Ickes](#)

[Daniel Levine](#)

[Roger Mellgren](#)

[Paul Paulus](#)

#### Associate Professor

[Perry Fuchs](#)

[Lauri Jensen-Campbell](#)

[Jared Kenworthy](#)

[Martha Mann](#)

[Yuan Peng](#)



**Assistant Professor**

**Jeffrey Gagne**  
**Linda Perrotti**

**Professor Emeritus**

**Verne Cox**

---

**Graduate Advisors**

**Jared Kenworthy**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*

**Maria Levings**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**Paul Paulus**

*Psychology, Industrial and Organizational, M.S.*

**Yuan Peng**

*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*

**Sarah Watson**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

---

**Department Information**

**Courses**

**Department Information**

**Objective**

**Admissions Criteria**

- **Probationary Admission**
- **Deferred Admission**
- **Provisional Admission**
- **Denial of Admission**
- **Eligibility for Scholarships/Fellowships**

**Degree Requirements**

- **Master of Science Degree**
- **Doctor of Philosophy**

**Objective**

The objective of graduate work in psychology is to educate the student in the methods and basic content of the discipline and to provide an apprenticeship in the execution of creative research.

Graduate work in the master's program and doctoral program will be offered in psychology. Students' individual programs of work may be arranged to give emphasis to a particular aspect of the general program.

Within this framework, options include, but are not limited to, Animal Behavior and Animal Learning, Cognition and Perception, Developmental, Health Psychology and Neuroscience, Industrial/Organizational, Behavioral Neuroscience, and Social-Personality Psychology. Students specializing in Cognition and Perception may include, in addition to their area C courses (described below), advanced topical seminars in their area of specialty. In addition to core courses (see area A) for those interested in Behavioral Neuroscience, seminars offered in the recent past include Aggression and Nociception. For those seeking expertise in the Social-Personality area, in addition to the area B courses, seminars have included topics such as Social Influence and Empathetic Accuracy and Intersubjectivity.

**Research Involvement**-Since the Department of Psychology believes that graduate training should involve the student continuously in the research process; students are encouraged to make personal contacts by letter or e-mail with faculty members of their choice. A description of the faculty and their areas of research may be obtained by consulting the department Web page at [www.uta.edu/psychology](http://www.uta.edu/psychology) or by writing to or calling the department at 817.272.2281. Every effort will be made to assign the incoming student to a faculty member of choice, but priority is given to those who have discussed their placement in advance.

**Deadline for Financial Aid Applications**-Students who wish to be considered for assistantships should have their applications and departmental forms sent to The University of Texas at Arlington by February 1 for the fall Semester and September 1 for the spring Semester. Students who do not desire financial aid may apply at any time up to the deadline listed by the Graduate School.

## Admissions Criteria

There are no fixed criteria for admission to the M.S. or Ph.D. programs in Psychology. Of course, the student is expected to have successfully completed the appropriate work prior to admission. In the case of the M.S. program, an undergraduate B.A. or B.S. degree is required. As calculated by the graduate school, a minimum grade point average of 3.0 (on a 4.0 scale) in undergraduate work is expected for unconditional admission. For the Ph.D., a minimum of 30 graduate hours with a GPA of 3.0 or better as calculated by the Graduate School is required.

Although we typically require at least a 3.0 average for unconditional admission, an average higher than 3.0 will not guarantee admission. Beyond these minimal criteria, there is no single criterion that determines whether a positive or negative admission decision is made.

Our admissions focus is on seeking positive indication of potential success in the program. These indications include:

1. A detailed examination of the student's transcript. Overall grade point average per se is not weighed as heavily as other grade indicants (e.g., grades in psychology) since most candidates for admission present averages greater than 3.0. Instead, we examine the coursework as evidence for research interest. Positive indicants of potential success in our program include greater than average work in psychology, the biological and physical sciences and mathematics. In similar fashion, evidence of experimental research previously undertaken is viewed as a predictor of future research. For students interested in specialization in Industrial/Organizational (I/O) Psychology at the Master's level appropriate coursework is taken into consideration.
2. Submission of Verbal, Quantitative and Analytical Writing GRE scores is required of all applicants including UT Arlington alumni. High GRE scores in each area are viewed as positive indicants, while a low GRE score on one subscale need not exclude a candidate who shows positive indicants in other areas.
3. At least three letters of reference are required and will be used as evidence of strong

commitment to experimental research (as in letters from an undergraduate research sponsor). We would prefer, if possible, letters from individuals such as your professors, who can comment on your academic abilities and potential. Evidence of success in employment relevant to I/O psychology will be considered for the Master's degree in that area.

4. The personal statement describing the applicant's laboratory, field, or applied interests, career plans and discussion of how the UT Arlington program can serve to further these interests and plans will be examined for evidence of the appropriateness of the candidate to the UT Arlington program.
5. Successful completion of a Master's degree in another department is viewed positively even when the degree was received in an area outside of psychology. In this latter case, some conditions in terms of make-up coursework may be specified.
6. As the expectation is that students will begin research in their first semester, they will be assigned a faculty member with whom they will work. This assignment will be based on space available in the student's program of interest and the fit of student to specific faculty's research interests. Since each area has its own criteria for admission, undergraduate interests deemed unsuitable by one faculty committee may be acceptable to another. The number of fully acceptable applicants generally exceeds the number admitted.

In summary the department views its mission in the MS/Ph.D program as to train students to be skillful in research. Therefore we seek students who show aptitude in as well as motivation for research. Students interested in the terminal MS program in Industrial/Organizational Psychology will have their records examined for indicants of potential to succeed in industrial settings.

### Probationary Admission

If an applicant does not have a majority of the positive indications for unconditional admission described above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

### Deferred Admission

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### Provisional Admission

An applicant unable to supply all documentation (including certified transcripts, GRE scores, letters of reference, and personal statements) prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### Denial of Admission

Applicants whose records in the aggregate do not show sufficient positive indications of potential success will be denied admission.

### Eligibility for Scholarships/Fellowships

Students unconditionally admitted to the program are eligible for scholarship and fellowship support. The criteria applied will be the same as those applied to admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

### Degree Requirements

In addition to the requirements outlined elsewhere, the Department of Psychology will require

undergraduate courses in statistics and in experimental methods. These courses may be taken as deficiency courses.

Degree requirements for the Department of Psychology are established by the Committee on Graduate Studies in Psychology and supplement those established by the University (see general requirements of the Graduate School as stated under the section entitled "Admission Requirements and Procedures").

Each entering graduate student will be furnished a copy of the departmental rules which will serve as guidelines for departmental actions and recommendations. Students are urged to consult the Department of Psychology's [Graduate Student Handbook](#) to obtain the most up-to-date information on department policies and practices that may impact their degree plans.

Each student must adhere to the code of ethics of the American Psychological Association.

## Master of Science Degree

As soon as is feasible, a student should decide on an area for specialization and research. After discussion with and consent of the involved faculty members, the student selects a supervising professor and a thesis committee. No student may enroll in PSYC 5698 until the thesis committee has approved a proposal for the thesis project.

**Specialization in Experimental Psychology** 30 hours, including six hours of thesis are required for this option. The program is designed to form the basis for the doctoral program. It is, however, open to those seeking a terminal master's degree. PSYC 5405, 5407, and 12 hours among 5313, 5321, 5322, 5333, 5345, and 6336 are required, including at least three hours from each area A, B, and C (see following).

**Specialization in Health Psychology:** 30 hours in psychology, including six hours of thesis are required for this option. The program is designed to form the foundational work for the doctoral program. Students are required to complete the statistics sequence in the department (PSYC 5405, 5407) and core courses in research methods (PSYC 5307), health psychology (PSYC 5309, and learning (PSYC 5313, 5314, 5345 or 6312) and at least one biological foundations course (PSYC 5333). In addition, students should enroll in PSYC 6102, Proseminar in Health Psychology, each long semester of graduate study. Please see the department's Graduate Handbook for suggested course sequences and degree plans. As for the experimental psychology specialization, thesis research and document are also required.

**Specialization in Health Psychology and Neuroscience:** 30 hours in psychology, including six hours of thesis are required for this option. The program is designed to form the foundational work for the doctoral program. Students are required to complete the statistics sequence in the department (PSYC 5405, 5407) and core courses in research methods (PSYC 5307), health psychology (PSYC 5309, and learning (PSYC 5313, 5314, 5345 or 6312) and at least one biological foundations course (PSYC 5333). In addition, students should enroll in PSYC 6101, Proseminar in Health Psychology, each long semester of graduate study. Please see the department's Graduate Handbook for suggested course sequences and degree plans. As for the experimental psychology specialization, thesis research and document are also required.

**Specialization in industrial/organizational (I/O) psychology:** 44 hours (47 with thesis option) in psychology are required for this degree. The program offers both a thesis and a non-thesis option; however, students pursuing applied careers are expected to complete the non-thesis route. All students in the program will be required to conduct research related to I/O psychology. Required psychology courses include PSYC 5405, 5407, 5322, 5323, 5324, 5325, 5326, 5328, 5329, 6349, one approved management elective, and six hours of internship (Psyc 5327). Students typically complete their thesis or non-thesis option (Individual Research) at the end of their second year.

A typical program of study looks like this:

Year	Fall	Spring
01	(4) - Psyc 5405 Adv. Statistics I	(4) - Psyc 5407 Adv. Statistics II

(3) - Psyc 5325 Organizational Behavior <sup>A</sup> or Psyc 5328 Employee Attitudes and Behavior <sup>B</sup>  (3) - Psyc 5322 Social Psychology  10	(3) - Psyc 5326 Employee Selection <sup>B</sup> or Psyc 5329 Performance Mgmt. Systems <sup>A</sup>  (3) - Psyc 5327 Internship  (3) - Psyc 5323 Group Processes <sup>B</sup> or Management Elective <sup>A</sup>  13
--	---

<b>02</b>  (3) - Psyc 5324 Applied Research Design  (3) - Psyc 5325 Organizational Behavior <sup>B</sup> or Psyc 5328 Employee Attitudes and Behavior <sup>A</sup>  (3) - Psyc 6349 Psychometrics  9	(3) - Psyc 5326 Employee Selection <sup>A</sup> or Psyc 5329 Performance Mgmt. Systems <sup>B</sup>  (3) - Psyc 5323 Group Processes <sup>A</sup> or Psyc 6349 Psychometrics <sup>B</sup>  (3) - Psyc 5327 Internship  (6) - Thesis or (3) Individual Research  15 or 12
---	--

Students who begin the I/O psychology program in odd numbered years (for example 2013, 2015) will take the courses marked with a Superscript "A" in the sequence presented.

Students who begin the I/O psychology program in even numbered years (for example 2012, 2014) will take the courses marked with a Superscript "B" in the sequence presented.

### Doctor of Philosophy

The degree of Doctor of Philosophy in psychology requires distinguished attainments in both scholarship and original research, and the deep understanding of the strategic role of thoughtful experimentation in the development of an empirical science. Although the student must meet the minimum requirements of a planned course of study, the ultimate basis for conferring the degree must be the demonstrated ability to do independent and creative work and the exhibition of a profound grasp of the subject matter of the field.

**Computer Knowledge Requirement:** Because of the fundamental and varied ways in which computers are applied in psychology, students are expected to understand their use and application in psychological research. Specifically, students are expected to demonstrate competence in the use of operating systems such as Windows or the Macintosh System, e-mail and other aspects of the Internet, standard office packages, data bases, programming languages (with specific reference to the programming of psychological experiments) and statistical packages such as SAS and SPSS. This computer knowledge requirement has been established in lieu of the foreign language requirement.

### Specialization in Experimental Psychology

The specialization in experimental psychology allows students to work in a general experimental context while specializing in one of several areas (e.g., cognitive psychology, social psychology, industrial/organizational, and so on).

Course requirements: Graduate students entering the experimental specialization will be required to take the following courses during their first four semesters of enrollment. Exceptions may be made only with written permission of the Committee on Graduate Studies.

Professional Development (5110 and 5112)  
 Statistics I (5405)  
 Statistics II (5407)

Four of the following courses, at least one from each area A, B, and C:  
 Area A: 5333 Behavioral Neuroscience, 6336 Comparative Psychology  
 Area B: 5321 Personality, 5322 Social Psychology  
 Area C: 5313 Higher Mental Processes, 5345 Human Learning and Memory

Experimental psychology students also have the option of taking PSYC 5309 - Health Psychology for the fourth core course.

Students with prior graduate work may be waived from any of the above requirements by a written request to the Committee on Graduate Studies. The request should include a syllabus or other documentation showing that a prior course and one of our required courses are equivalent. Students should discuss course equivalency with the professor(s) who teach the course(s) in question before submitting a request. Having fulfilled the above, the following are required:

1. An additional five courses (15 hours) from among lecture courses.
2. Two six-hour research courses. These may be taken from PSYC 5698 or PSYC 5600. Students who plan to obtain the MS should elect PSYC 5698 as one of the research courses and students who do not plan to obtain the MS should select two sections of PSYC 5600. If the student does not elect to obtain the MS, one of the research courses must result in a formal thesis-equivalent paper, which will be evaluated by a committee and defended in an oral examination. The two research courses are a minimum requirement. Students are strongly encouraged to take PSYC 5391 or 6391 before taking PSYC 5600 and PSYC 5698.
3. Nine hours of PSYC 6300.
4. Additional hours of coursework to be determined by the Graduate Advisor and dissertation committee. The student should plan to take approximately 86 hours including 6999. At least 45 of these hours must be in organized courses, lectures or seminars. No student may enroll in a dissertation course until the dissertation committee has approved a proposal for the dissertation project.

A student has completed the course requirements when he or she has:

1. Maintained at least a B average in 5405 and 5407.
2. Maintained at least a B average in his or her area core courses.
3. Received at least a B average in all other courses.

A typical program of study might look like this:

Year	Fall	Spring
01	Statistics I, an A, B or C core course, Professional Development I, Readings and/or Research elective	Statistics II, an A, B or C core course, Professional Development II, Readings and/or Research elective
02	An A, B, or C core course, Seminar, Lecture Electives and/or Thesis	An A, B, or C core course, Seminar, Lecture Electives and/or Thesis
03	Lecture Electives and/or Thesis, Seminar, Readings and/or Research elective	Lecture Electives and/or Seminar, Readings and/or Research elective
04	Lecture Electives and/or Thesis, Seminar, Readings and/or Research elective Dissertation Research	Lecture Electives and/or Thesis, Seminar, Readings and/or Research elective Dissertation Research
05	Dissertation Research	Dissertation Research

Note: This is based on a 5-year program of study. Students may adjust the speed at which milestones are achieved by adding 4th year courses earlier.

#### Prerequisite Conditions for the Qualifying Examination

In order to begin working on the qualifying exam, students must complete the Departmental MS Core Curriculum requirements as set forth elsewhere in the catalog. Generally, these course requirements will be met within the first two years of graduate enrollment. Students must also satisfactorily participate in the Research Progress Symposium (RPS). Finally, a Master's Thesis (or equivalent) must be completed. Students entering the program with a master's degree must



complete the Departmental MS Core Curriculum requirements and satisfactorily participate in the RPS before being invited to begin work on the Qualifying Examination. Upon completion of these prerequisite conditions, students have one year to complete their Qualifying Examination. This process consists of a Major Area Paper (MAP) and an oral defense, both of which must be completed within one year.

#### MAP and MAP Oral Defense

The MAP consists of a comprehensive review paper, which is a summary, integration, and critical review of the literature relevant to a general theme or topic. It is expected that the student will offer a novel and forward-thinking perspective on the topic area. The MAP does not directly propose research hypotheses and designs, nor does it involve the collection of primary-level data. It may be either a quantitative review (i.e., a meta-analysis) or a more qualitative review. It should contain a concluding section in which novel ideas are proposed and elaborated upon, and which will form a basis for the MAP Oral Defense. The topic area and scope of the MAP will be developed with the student's primary faculty mentor and one or two other Department of Psychology Faculty members. The preferred size of the Qualifying Examination Reading Committee is three members, but a two-member Committee is acceptable if an appropriate third member is not available. Students may consult their Committee members for general comments and direction concerning the MAP, but Committee member involvement in the writing of the MAP (including that of the student's Faculty mentor) is expected to be minimal.

Upon submission of the MAP document to the Qualifying Examination Reading Committee, the Committee will evaluate the MAP in terms of its potential contribution to the student's chosen field, and in terms of the degree to which it represents Ph.D.-level thinking, communication, independence, and scholarship. Ordinarily, the Qualifying Examination Reading Committee will take no longer than two weeks to evaluate the MAP and communicate their decision to the student. If the Committee determines that the MAP is unacceptable, the student will be given three months to revise it for a second evaluation by the Committee. If the revised version of the MAP is also judged to be unacceptable, the student will not be invited to pursue the Ph.D. degree in the UT Arlington Graduate Program in Psychology. Such a student's Master's degree will thus be his/her terminal degree.

If and when the MAP is deemed acceptable by the Committee, the Committee will invite the student to a MAP Oral Defense, which will take place no sooner than two weeks following communication from the Committee to the student that the student's MAP is acceptable. The MAP Oral Defense consists only of the student and Committee members, and is not open to other students, faculty, staff, or the general public. In this meeting, which will normally last between 90 and 120 minutes, Committee members will assess the student's knowledge of the topic area, the theoretical background, the methodologies likely to be employed in related research, limitations to the ideas, and conceptual and practical connections to related issues. The Committee will determine whether or not the student has clearly passed the examination, clearly failed, or passed with conditions which must be met before Ph.D. Candidacy is recommended. Upon passing both the MAP and the MAP Oral Defense, a Diagnostic Evaluation Report form must be completed, signed, and filed.

#### General Expectations and Stipulations

Upon satisfactory completion of both the MAP and the MAP Oral Defense, students should assemble a Dissertation Committee, which consists of their Faculty mentor and four other faculty members, for a total of five committee members. Students will meet with this Committee to present the proposed research and to solicit input concerning the best ways to accomplish the goals of the Dissertation Proposal. The Dissertation research may be related to, or based upon, the MAP, but this is not required. Upon approval of the Dissertation conceptualization, design, and methods, students will proceed in carrying out the approved plan of research. Please consult the Graduate Catalog and Department Handbook for general expectations regarding the Dissertation.

In addition, consult the Graduate Catalog and Department Handbook for general expectations regarding timelines. Typically, students will complete their Master's Thesis (or equivalent) in the 2nd or 3rd year of graduate studies. Ordinarily, the Qualifying Examination will be completed within one year of successfully completing the prerequisite conditions as outlined above. Because both

the MAP and the MAP Oral Defense have a two-week review and planning period, respectively, students must take these weeks into account when planning completion of the Qualifying Examination within one year. Students are also advised to be cognizant of these time frames in the event that they are required to revise their MAP. If the MAP and MAP Oral Defense have not been completed within one year of completion of all prerequisite conditions, students must submit a written explanation to their Qualifying Examination Reading Committee, detailing their progress and their anticipated completion date. Failure to complete the MAP and MAP Oral Defense within one year will also be a consideration in GTA funding decisions."

Comprehensive Examination: Presentation of a dissertation proposal to the student's dissertation supervisory committee constitutes the doctoral "comprehensive examination" for the Department of Psychology. A Request for Comprehensive Examination (PhD) form must be submitted prior to the presentation. A Results of Comprehensive Examination (PhD) form must be submitted after the presentation. These forms are available on-line. Approval of the dissertation proposal by the dissertation supervisory committee is needed before the student is considered to have passed the comprehensive examination.

### Specialization in Health Psychology and Neuroscience

The concentration in Health Psychology and Neuroscience is designed to train researchers in health and behavior, working at the cutting-edge or interdisciplinary, biomedical and biobehavioral investigation in areas such as pain, stress, psychoimmunology, cancer and aging.

#### Course Requirements:

Students seeking to specialize in Health Psychology and Neuroscience will be required to complete the two-course department statistics sequence (PSYC 5405 and PSYC 5407) and Research Methods (PSYC 5307) as well as core courses in Psychological Foundations, including Health Psychology (PSYC 5309), and Learning (Higher Mental Processes--PSYC 5313, Cognitive Development--PSYC 5314, Human Learning and Memory--PSYC 5345, or Animal Learning--PSYC 6312. Students are strongly advised to take History and Systems (PSYC 6316).

In addition, students are required to complete coursework in biological foundations, including systems physiology, neuroscience, and at least one relevant biological or biomedical specialty. A minimum of three foundations courses must be completed and these must include physiology (one of several approved courses offered in other UT departments), and behavioral neuroscience (PSYC 5333). The third required foundations course must be an approved graduate level course in genetics, immunology, endocrinology, or other specialized biomedical topic available at UT Southwestern or another UT Arlington department.

Students must complete seven electives in psychology or in other UT departments that have been approved by the program over the entire course of study. At least 5 must be courses offered by the Department of Psychology. Most department offerings will satisfy this requirement. It is expected that these electives will be advanced seminars and research courses. Students will also be required to enroll and participate in the Health Psychology Proseminar, which will meet weekly for 1 hour as a forum for a variety of seminar activities, presentations, and so on. Students will enroll in this seminar every long semester for the first four years of graduate study.

- 8 hours of Proseminar
- 8 hours of Statistics (2 courses)
- 9 hours of psychological foundations courses (methods, learning, health psychology)
- 9-12 hours biological foundations (3 courses, 3-4 credits each)
- 21 hours electives
- Thesis and dissertation as required

A typical program of study might look like this:

Year	Fall	Spring
01	Statistics, Research Methods, Proseminar	Statistics, Health Psychology, Proseminar
02	Physiology, Elective, Proseminar	Neuroscience, Learning, Proseminar



03	Biological Elective, Elective, Proseminar	Elective, Elective, Proseminar
04	Elective, Elective, Research Proseminar	Elective, Proseminar
05	Research	Research

Note: This is based on a 5-year program of study. Students may adjust the speed at which milestones are achieved by adding 4th year courses earlier.

#### Research requirements:

Research requirements include general expectations of student involvement in research throughout their graduate career and specific milestones that must be accomplished in order, including the masters' research preliminary examination, diagnostic/qualifying examinations, and the dissertation.

Masters' research: Students must complete a significant research project with primary responsibility for its derivation, conduct, and/or analysis. Ordinarily this is done during the first two years of graduate study. This must be completed before students can seek candidacy for the PhD. Students must complete, analyze, and report on a major research project, part or all of which is primarily the student's responsibility. Typically this is an experiment or study. For formal acceptance of an approved thesis so that the student can obtain a MS, university guidelines apply. The thesis committee should consist of 3 program faculty. Alternatively, the committee shall determine accepted format if a MS is not sought.

#### Preliminary Examination

Students must pass a preliminary exam, typically given at the start of the second year of graduate study. Students write answers to five questions derived from a pre-supplied readings list that test general ability to organize and integrate information and defend positions in areas of psychology. Students will be asked to re-cast, reformulate, challenge, defend, or derive established or novel concepts in psychology. Students who do not pass the exam are usually given the opportunity to retake it. Students may not seek candidacy for the PhD until this requirement has been satisfied. Reading lists are available at least four months before the examination.

#### Advancement to Candidacy

Once students have passed the Preliminary Exam and have completed the master's thesis or equivalent, they are eligible to undertake the diagnostic/qualifying examination. Successful completion of this exam process produces a recommendation for advancement to candidacy for the PhD. This process consists of two exams. The first is a comprehensive review paper that requires the student to take a novel or speculative perspective and provide an integrative and critical review of relevant literatures. Ordinarily this is completed in the third, or early in the fourth year, and may be incorporated into the introduction for the dissertation. The completed paper should be of a "publishable quality" in the style required for publication in the Psychological Bulletin. The student must assemble a two-person faculty committee (both should be program faculty) for this requirement and should meet with them at least twice, to get the topic and scope of the paper approved, and for final approval of the paper. Meetings may also be scheduled at variable intervals depending on the committee and student.

The second part of the diagnostic/qualifying examination is an oral examination, typically 90-120 minutes long, on the student's area of specialization. This will be completed after the third-year paper above has been formally accepted and will involve a student and a committee of three program faculty. In this examination, the student will present a proposition or series of propositions and a proposal to study them, and the committee will examine the student's knowledge of the area, of its methods and limitations, and of how these propositions fit into larger frameworks. The committee will determine whether the student has passed the specialty examination. An initial failure to pass can result in a retake, but continued failure will lead to a recommendation not to advance to candidacy. Passing the specialty and third-year paper requirements will lead to a recommendation for advancement to candidacy to the members of the Committee on Graduate Studies.

#### Dissertation

Upon advancement to candidacy, each student will assemble a dissertation committee. This committee is formed by the student in consultation with his or her mentor, and will consist of at least five faculty members. At least three of the faculty must be drawn from among Program faculty. The student will initially meet with this committee to present the proposed research, deliberate about the best ways to accomplish particular goals, and so on. Approval of the proposal implies that the project's conceptualization, design, and proposal methods are acceptable and that particular results are not required. Once the committee has approved the proposal (this may occur at the end of the first, or after two or more meetings), the student enrolls in dissertation research (6X99) and conducts his/her dissertation research. During this period, meetings with the committee are on an "as needed" basis. During the data analysis phase, the student may wish to schedule an informal meeting. Similarly, during writing of the dissertation, the committee may or may not meet. When a student has completed a draft of the dissertation that the primary mentor deems appropriate for his or her committee, a date for the oral defense is scheduled, and written drafts must be provided to committee members at least two weeks before this date. The PhD oral examination is conducted by the dissertation committee. The first part of the examination is an oral presentation of the research and its findings. This portion of the meeting is open to any member of the university community and guests. The second part is closed and consists of specific detailed questions about the dissertation. Both oral defense and the written dissertation must be passed.

### **Specialization in Industrial/Organizational Psychology**

Students interested in pursuing a doctoral degree with an emphasis in I/O psychology may apply for admission to either the Experimental specialization or Health Psychology and Neuroscience specialization in the doctoral program. The requirements for admission will be the same as for other master's level students, which includes completing the core curriculum requirements and an empirical thesis or thesis equivalent. Students intending to pursue their doctoral work at another university should be aware that a non-thesis master's may oblige them to meet many additional requirements at their future university, a burden that may be reduced by pursuing a doctoral degree in psychology at UT-Arlington.

## **PSYC Courses**

### **PSYC5110 – PROFESSIONAL DEVELOPMENT I**

1 Lecture Hour · 0 Lab Hours

The philosophy and methods of conducting a university class for undergraduates are examined. Specific tips and suggestions for managing course materials, lectures, audiovisual aids, grading, etc. will be presented. The role of the university instructor as a researcher as well as a teacher will be elaborated. Specific topics will include the ethics and regulation of research, service as a journal referee, corresponding with peers, participating in a research team, manuscript preparation, presentation at professional conferences, and submitting material for publication. Prerequisite: admission to the graduate program in psychology or permission of the instructor. Graded F, P. Prerequisite: Admission to the graduate program in psychology or permission of the instructor.

### **PSYC5112 – PROFESSIONAL DEVELOPMENT II**

1 Lecture Hour · 0 Lab Hours

An introduction to the skills associated with the conduct of psychology as a science and as a profession. Individual faculty will be invited to present techniques and approaches that they see as useful and necessary to the application of the specialty in psychological research and problem-solving. Graded F, P. Prerequisite: Admission to the graduate program in psychology or permission of the instructor.

### **PSYC5151 – READINGS IN PSYCHOLOGY**

1 Lecture Hour · 0 Lab Hours

Independent readings under the supervision of an individual faculty member. Students wishing to conduct research should sign up for PSYC 5191, 5291, or 5391. May be repeated for credit with consent of the Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5191 – RESEARCH IN PSYCHOLOGY**

**1** Lecture Hour · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5251 – READINGS IN PSYCHOLOGY**

**2** Lecture Hours · **0** Lab Hours

Independent readings under the supervision of an individual faculty member. Students wishing to conduct research should sign up for PSYC 5191, 5291, or 5391. May be repeated for credit with consent of the Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5291 – RESEARCH IN PSYCHOLOGY**

**2** Lecture Hours · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5301 – BRAIN & BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

A comprehensive survey of physiological processes and structures underlying human and animal behavior.

## **PSYC5307 – RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

This course considers basic and advanced aspects of methodology used in psychological research, including experimental design, methodologies that combine disciplinary approaches (e.g., biomedical, behavioral, and field and laboratory approaches).

## **PSYC5309 – HEALTH PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

A survey of current theory and research in health psychology, including basic research in health and behavior, biobehavioral contributions to illness and disability, and fundamental relationships among the brain, bodily function, and behavior that may affect health and well-being. It will also include clinical and translational topics including patient interventions in medically-ill populations, pain management, and disease prevention.

## **PSYC5310 – MATHEMATICAL MODELS IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Elementary probability theory, matrix algebra, and theory of linear difference equations applied to theoretical problems in learning, signal detection, decision processes, and social interactions.

## **PSYC5313 – HIGHER MENTAL PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Includes topics such as concept identification, problem solving, reasoning, and knowledge representation.

## **PSYC5314 – COGNITIVE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

A survey of current theories of cognitive development. Recent research within topic areas, such as physical reasoning, spatial cognition, memory, and symbol use, will be used to evaluate the theories presented.

## **PSYC5315 – BEHAVIOR ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Overview of operant theory with an emphasis upon contemporary problems. Basic concepts that are covered include: reinforcement and stimulus control, punishment, compound schedules, response topography, and chaining. Other topics include complex human operants, verbal behavior, behavior modification, and contingency management.

### **PSYC5321 – PERSONALITY PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

A survey of contemporary topics in personality psychology, including personality assessment, strategies for studying personality, temporal stability and cross-situational consistency in behavior, and personality influence on social behavior.

### **PSYC5322 – SOCIAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

A survey of contemporary topics in social psychology, including interpersonal attraction, altruism and aggression, attribution and social cognition, social influence, group dynamics, and social motivation.

### **PSYC5323 – GROUP PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Survey of the major topics in group dynamics. Among the issues covered will be performance, motivation, goal setting, decision-making, creativity, social influence, memory, leadership, teamwork, and collective behavior.

### **PSYC5324 – APPLIED RESEARCH DESIGN**

**3** Lecture Hours · **0** Lab Hours

Basic aspects of organizational research methods will be covered including: research ethics, the scientific method, inductive and deductive reasoning, research questions, hypotheses, study designs, manipulation of variables, and various measures and methods used in organizational research. The history of Industrial and Organizational research will also be covered.

### **PSYC5325 – ORGANIZATIONAL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Theory and research concerning organizational development will be examined. This course is designed to provide an intensive survey of topics relating to organizational socialization, communication, change strategies, climate and culture, and team dynamics. Leadership theories, models, and practices will be evaluated.

### **PSYC5326 – EMPLOYEE SELECTION**

**3** Lecture Hours · **0** Lab Hours

Principles and techniques of employee selection, placement, and classification will be examined. Job analysis and competency modeling will be covered with a focus on the legal aspects of selection and promotion. The use of various methods and measures of job relevant individual differences will be examined within the context of predicting performance criteria.

### **PSYC5327 – INDUSTRIAL AND ORGANIZATIONAL INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

This course is preparation for and supervision of internship activities in an organization or organizations in an area related to area of interest or training. No credit will be given for previous experience or activities. Course may be repeated for credit. Prerequisite: consent of instructor.

### **PSYC5328 – EMPLOYEE ATTITUDES AND BEHAVIORS**

**3** Lecture Hours · **0** Lab Hours

Theory and research concerning the determinants, consequences, and measurement of job satisfaction and related constructs such as involvement, commitment and work motivation will be covered. Attitudes,

opinions, and beliefs will be examined in relation to the behavioral intentions of individuals at work. Organizational interventions designed to improve and enhance employee motivation, attitudes and behaviors will be evaluated.

### **PSYC5329 – PERFORMANCE MANAGEMENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Principles and techniques of the performance appraisal and feedback process will be covered. Different sources of performance information will be evaluated. Mentoring and procedures for communicating performance evaluation information and improving job performance via development and training will be examined. Theories and techniques used to design, conduct, and evaluate training programs will be evaluated.

### **PSYC5331 – PERCEPTION AND ATTENTION**

**3** Lecture Hours · **0** Lab Hours

Survey of methods and findings dealing with perception; emphasis will be upon behavioral rather than physiological considerations; particular topics include signal detection theory, form and pattern recognition, and attentional mechanisms.

### **PSYC5333 – BEHAVIORAL NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

A survey of biological and physical processes underlying behavior. Emphasis on neural, hormonal, and genetic determinants of behavior. Topics include regulatory behaviors, reward and nociceptive systems, differentiation and sociosexual behaviors, limbic and cortical functions.

### **PSYC5334 – HUMAN PHYSIOLOGY**

**3** Lecture Hours · **0** Lab Hours

This course will provide a comprehensive review of the human physiology that is categorized in 15 sections and 84 chapters. Some of them will be covered by different courses, such as Neuroscience, Immunology, and Endocrinology. Students are expected to learn how the human body works and what the underlying mechanisms that control the physiological responses are. In case of damage to these systems, what will happen to the body as a whole and what will be the impact on behaviors?

### **PSYC5337 – ANIMAL COGNITION AND BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

A survey of theory and data on how animals learn and represent the world and the evolutionary processes that influence their individual and social behavior.

### **PSYC5341 – DECISION MAKING**

**3** Lecture Hours · **0** Lab Hours

Factors that influence categorical and numerical judgments, choices, and preference decisions. Comparison of human decision behavior with various quantitative theories.

### **PSYC5345 – HUMAN LEARNING AND MEMORY**

**3** Lecture Hours · **0** Lab Hours

Survey of current approaches to the study of human learning and memory.

### **PSYC5348 – EXPOSURE TO CONTEMPORARY PC MICROCOMPUTERS**

**3** Lecture Hours · **0** Lab Hours

Operating systems, ASCII editors, word processors, spreadsheets, graphics, data bases, programming languages, programming psychological experiments, statistical programming, using networks, the Internet, e-mail, Gopher, FTP, and Telnet.

### **PSYC5351 – READINGS IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Independent readings under the supervision of an individual faculty member. Students wishing to conduct research should sign up for PSYC 5191, 5291, or 5391. May be repeated for credit with consent of the Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

### **PSYC5389 – CONTEMPORARY PROBLEMS IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Topics vary. May be repeated for credit with consent of Graduate Advisor.

### **PSYC5390 – CAPSTONE COURSE IN INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Designed for students near or at the end of their I-O curriculum to demonstrate the ability to apply knowledge of industrial-organizational psychology.

### **PSYC5391 – RESEARCH IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

### **PSYC5405 – ADVANCED STATISTICS I**

**3** Lecture Hours · **1** Lab Hour

Basic descriptive and inferential statistics used in psychological research.

### **PSYC5407 – EXPERIMENTAL DESIGN**

**3** Lecture Hours · **2** Lab Hours

Statistical aspects of complex experimental designs used in psychological research. Prerequisite: PSYC 5406.

### **PSYC5600 – ADVANCED RESEARCH**

**6** Lecture Hours · **0** Lab Hours

Supervised research. May be repeated for credit. Graded P/F/R. Prerequisite: permission of instructor

### **PSYC5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: 12 hours of advanced psychology and an approved thesis proposal.

### **PSYC6101 – PROSEMINAR IN HEALTH PSYCHOLOGY**

**1** Lecture Hour · **0** Lab Hours

Professional development seminar will include presentations of ongoing and recently completed research, discussion of best approaches to writing reports and giving research presentations, grant writing skills, and other scientific, professional issues.

### **PSYC6110 – PROSEMINAR IN INDUSTRIAL & ORGANIZATIONAL PSYCHOLOGY**

**1** Lecture Hour · **0** Lab Hours

Professional development seminar will include presentations of ongoing and recently completed research, discussion of best approaches to writing reports and giving research presentations, grant and contract

writing skills, and other scientific, professional issues. Course may be repeated for credit. Prerequisite: consent of instructor.

### **PSYC6191 – RESEARCH IN PSYCHOLOGY**

1 Lecture Hour · 0 Lab Hours

### **PSYC6291 – RESEARCH IN PSYCHOLOGY**

2 Lecture Hours · 0 Lab Hours

### **PSYC6300 – SEMINAR IN PSYCHOLOGY**

3 Lecture Hours · 0 Lab Hours

Offered each semester. Topics vary. May be repeated for credit. Prerequisite: consent of instructor.

### **PSYC6312 – ANIMAL LEARNING**

3 Lecture Hours · 0 Lab Hours

Survey of contemporary topics in animal learning.

### **PSYC6316 – HISTORY AND SYSTEMS**

3 Lecture Hours · 0 Lab Hours

Consideration of the origins of psychology in the development of Western thought. Early conceptualization of problems and their modification with changes in evidence is emphasized.

### **PSYC6318 – SOCIAL AND PERSONALITY DEVELOPMENT**

3 Lecture Hours · 0 Lab Hours

Theory and research on social and emotional development with an emphasis on the interaction between individual needs and abilities and societal expectations and demands.

### **PSYC6320 – NEUROPHARMACOLOGY**

3 Lecture Hours · 0 Lab Hours

Survey of the basis of behavioral pharmacology including mechanisms and theories of drug actions, techniques and strategies of research, common psychoactive drugs, and the uses of drugs in clinical practice.

### **PSYC6335 – ANIMAL BEHAVIOR**

3 Lecture Hours · 0 Lab Hours

Phylogenetic approach to some basic problems in behavior, with special emphasis on unlearned behavior.

### **PSYC6336 – COMPARATIVE PSYCHOLOGY**

3 Lecture Hours · 0 Lab Hours

Theory and data about all aspects of behavior stressing similarities and differences across species.

### **PSYC6338 – NEURAL AND COGNITIVE MODELING**

3 Lecture Hours · 0 Lab Hours

Principles of neural network and dynamical systems modeling; application of these principles to the simulation of cognitive processes in both brains and machines; models of associative learning, pattern recognition and classification, and individual and group behavior. Prerequisite: consent of instructor.



### **PSYC6343 – COGNITIVE NEUROPSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Surveys current experimental and clinical research and theory relating the brain and cognition. Emphasizes selected areas i.e., perception, attention, memory, language, and thinking.

### **PSYC6346 – EVOLUTIONARY PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Evolutionary processes influence behavior and thinking of humans and nonhuman species. Sociosexual behavior, aggression, cognition, and information processing from an evolutionary perspective will be among the topics covered.

### **PSYC6347 – ENVIRONMENTAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Survey of the current literature on the impact of various features of the physical environment on human behavior. Topics covered include crowding, privacy, territoriality, personal space, noise, the natural environment, residential, educational and work environments, urban and community design, and pollution and resource management. Designed to be of interest to graduate students in architecture, urban affairs, environmental science and engineering, geology, sociology, as well as those in psychology.

### **PSYC6349 – PSYCHOMETRIC THEORY**

**3** Lecture Hours · **0** Lab Hours

Introduction to test construction. Topics include reliability theory, test validation, and item analysis.

### **PSYC6355 – MULTIVARIATE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Application of general linear model to special cases such as factor analysis, multiple regression, and discriminant analysis. PSYC 5344 recommended.

### **PSYC6391 – RESEARCH IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

### **PSYC6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded R/F. Prerequisite: approved dissertation proposal.

### **PSYC6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded R/F/P/W. Prerequisite: approved dissertation proposal.

### **PSYC6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: approved dissertation proposal.

### **PSYC7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial



aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
    - Social Work - MSSW & PhD
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Social Work

School of Social Work

Web [www.uta.edu/ssw/](http://www.uta.edu/ssw/)

---

### Degrees / Certificates

#### Master's Degrees

- Social Work, M.S.S.W.
- Social Work, M.S.S.W. Advanced Studies
- Social Work, M.S.S.W. Non Thesis Advanced Specialty

#### Doctoral Degrees

- Social Work, Ph.D.

---

### Graduate Faculty

- [Yvonne Butler](#)
- [Noelle Fields](#)
- [Janet Finch](#)
- [Schnavia Hatcher](#)
- [Michael Killian](#)
- [Anne Nordberg](#)

#### Assistant Professor in Practice

- [Jane Hickerson](#)

#### Associate Dean for Research & Community Outreach

- [John Bricout](#)

#### Associate Dean of Academic Affairs

- [Debra Woody](#)

#### Professor

- [Beverly Black](#)
- [Doreen Elliott](#)
- [Rebecca Hegar](#)
- [Richard Hoefler](#)
- [Ski Hunter](#)
- [Catheleen Jordan](#)
- [Vijayan Pillai](#)
- [Phillip Popple](#)
- [Maria Scannapieco](#)

#### Associate Professor

- [Randall Basham](#)
- [Norman Cobb](#)
- [Peter Lehmann](#)
- [Diane Mitschke](#)
- [Sung Moon](#)
- [Alexa Smith-Osborne](#)

#### Assistant Professor

[Gail Adorno](#)  
[Joan Blakey](#)  
[Courtney Cronley](#)  
[Elissa Madden](#)  
[Regina Praetorius](#)  
[Katherine Sanchez](#)  
[Eusebius Small](#)  
[Larry Watson](#)

#### Professor Emeritus

[James W Callicutt](#)  
[Wayne Duehn](#)  
[Peter G Gaupp](#)  
[Santos Hernandez](#)  
[Pedro J Lecca](#)  
[John J Litrio](#)  
[Nazneen Mayadas](#)  
[Charles Mindel](#)  
[Richard Schoech](#)  
[M Coleen Shannon](#)  
[Fernando G Torgerson](#)  
[Thomas Watts](#)

---

### Graduate Advisors

[Nancy Ashenhart](#)  
*Social Work, Ph.D.*

[Randall Basham](#)  
*Social Work, M.S.S.W.*

[Beverly Black](#)  
*Social Work, Ph.D.*

---

### Department Information

#### Courses

## Department Information

#### Master of Science in Social Work (MSSW)

- [MSSW Program Goals](#)
- [MSSW FOUNDATION OBJECTIVES](#)
- [MSSW ADVANCED YEAR OBJECTIVES](#)
- [Admission Criteria for the Master's Program](#)
- [Dual Degree Programs - On Campus](#)
- [MSSW Programs - Distance Education Programs](#)
- [Joint Master's in Social Work and Masters in Public Health \(MSSW/MPH\)](#)
- [Part-Time Students](#)

#### Doctor of Philosophy in Social Work

- [Ph.D. Program Goals](#)
- [Ph.D. Program Objectives](#)
- [Admission Criteria for the Ph.D. Program](#)

- **Degree Requirements**

## **Master of Science in Social Work (MSSW)**

### **MSSW Program Goals**

Goal 1: The MSSW Program prepares students to practice effectively and ethically with the full range of social systems, emphasizing evidence-informed practice, a strengths approach, diversity, social justice, empowerment, and a critical thinking perspective.

Goal 2: The MSSW program prepares students who understand the global and organizational contexts of social work practice and who are prepared to assume the responsibility for leadership positions, as well as engaging in life long-learning.

Goal 3: The MSSW Program prepares students, by valuing social work history and the integration of social work knowledge, to understand professional social work and to be prepared for advanced level concentration in either:

Concentration 1: Direct Practice with a specialization in (1) Child and Family Services; and, (2) Mental Health Services, or

Concentration 2: Community and Administrative Practice.

### **MSSW FOUNDATION OBJECTIVES**

1. Apply critical thinking skills within the context of professional social work practice.
2. Understand the value base of the profession and its ethical standards and principles, and practice accordingly.
3. Practice without discrimination and with respect, knowledge, and skills related to clients' age, class, color, culture, disability, ethnicity, family structure, gender, marital status, national origin, race, religion, sex, and sexual orientation.
4. Understand the forms and mechanisms of oppression and discrimination and apply strategies of advocacy and social change that advance social and economic justice.
5. Understand and interpret the history of the social work profession and its contemporary structures and issues.
6. Apply the knowledge and skills of generalist social work practice with systems of all sizes.
7. Use theoretical frameworks supported by empirical evidence to understand individual development and behavior across the life span and the interactions among individuals and between individuals and families, groups, organizations, and communities.
8. Analyze, formulate, and influence social policies.
9. Evaluate research studies, apply research findings to practice, and evaluate their own practice interventions.
10. Use communication skills differentially across client populations, colleagues, and communities.
11. Use supervision and consultation appropriate to social work practice.
12. Function within the structure of organizations and service delivery systems and seek necessary organizational change.

### **MSSW ADVANCED YEAR OBJECTIVES**

#### **Direct Practice Concentration Educational Objectives**

By graduation, students specializing in Direct Practice will achieve the foundation objectives and the following advanced concentration objectives:

1. Demonstrate knowledge and skills in direct practice with an area of specialization: child and family services or mental health services.

2. Complete multidimensional, bio-psycho-social assessments with client systems and groups in their area of specialization, taking into account client strengths, diversity and social justice.
3. Develop and apply appropriate, evidence-informed, empowerment-based intervention plans within their area of specialization.
4. Critically analyze theoretical models of micro practice to challenge societal oppression and discrimination, as well as for decision-making in practice.
5. Demonstrate an understanding of race, gender, sexual orientation, ability, culture, and other client characteristics, in conducting culturally sensitive, competent, and ethical social work practice.
6. Demonstrate the ability to evaluate practice activities by use of outcome and process techniques, using the results to modify practice.
7. Demonstrate ability to integrate micro and macro practice, policy and research into their area of service delivery in order to enhance client well-being.
8. Engage in life-long learning and activities to update and improve professional knowledge and skills.

### **Community and Administrative Practice Concentration Educational Objectives**

By graduation, students specializing in Community and Administrative Practice will achieve the foundation objectives and the following advance concentration objectives:

1. Build on generalist skills in community assessment to design an intervention strategy including mission, goals, objective, budget, logic model, and evaluation.
2. Identify, critically evaluate, and apply appropriate, evidence-informed interventions at the agency or community level.
3. Critically analyze and apply a variety of community and administrative theories to practice.
4. Demonstrate skills in ethically and empowerment-based social work practice, taking into account the impact of race, gender, sexual orientation, ability, culture, religion, national origin and other client characteristics in organizations, and communities.
5. Design practice evaluation activities to improve human service interventions in organizations and communities.
6. Demonstrate ability to integrate micro and macro practice, policy, and research into their area of service delivery in order to enhance client well-being.
7. Prepare to engage in life-long learning and activities to update and improve professional knowledge and skills.

### **Admission Criteria for the Master's Program**

#### **Admission Procedures**

Students are admitted to the MSSW program for Fall or Spring semester with the exception of students that qualify for advanced standing with their undergraduate social work degree. Advanced Standing students can be admitted for a fall, spring or summer semester. Please contact the MSSW Admissions Office ([sswadmissions@uta.edu](mailto:sswadmissions@uta.edu)) to obtain the complete application checklist and information concerning specific application deadlines. Applicants may also visit the MSSW Admissions webpage for more information (<http://www.uta.edu/ssw/academics/mssw/mssw-admissions.php>).

The admissions process is the same for all MSSW programs, including the Distance Education Cohorts.

\*Please note that the School of Social Work's deadline for application is different from the published deadlines of the Graduate School.

#### **General Admission Criteria**

1. A bachelor's degree with a liberal arts perspective from an accredited college or university.

2. Undergraduate GPA must be equal to or greater than 3.0 in the last 60 hours as calculated by the Graduate School or GRE score that evidences an ability to do satisfactory graduate work.
3. Three letters of reference indicating professional or academic promise.
4. Personal statement providing evidence of professional or academic goals consistent with the Social Work Program.
5. Personal qualifications considered essential to the successful practice of social work including leadership ability, personal maturity, motivation for a human service profession and experience in social work. A personal interview may be required.
6. Applicants to the school whose native language is not English must take, in addition to the Test of English as a Foreign Language, the Test of Spoken English.

**Unconditional MSSW Admission:** An applicant is admitted unconditionally when all documentation relating to admissions criteria is received and performance on a majority of the criteria is acceptable.

**Probationary Admission:** Candidates with less than a 3.0 GPA in the last 60 hours of undergraduate program as calculated by the Graduate School and GRE scores do not indicate ability to do satisfactory graduate work may be admitted on probation if other admission criteria are satisfactory and indicate academic potential.

**Provisional Admission:** An applicant unable to supply all required documentation prior to the admission decision deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

**Denial of Admission:** Candidates may be denied admission if they have less than satisfactory performance on a majority of the admissions criteria.

**Deferred Admission:** A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

Neither probationary nor provisional admission will be granted to an applicant with less than a 3.0 GPA on the last two years of a bachelor's degree (approximately 60 hours) when the required GRE score is lacking.

### **Financial Aid**

Scholarships are awarded annually and administered by the School of Social Work. Link to scholarship info: [www.uta.edu/ssw/student-resources/scholarships.php](http://www.uta.edu/ssw/student-resources/scholarships.php)

A limited number of traineeships are available through Child Protective Services.

### **Graduate Fellowships**

Candidates for fellowship awards must have a GPA of 3.0 in their last 60 undergraduate credit hours and in any graduate credit hours, and must be enrolled in a minimum of 6 hours in both long semesters to retain their fellowships.

### **Curriculum: Master of Science in Social Work**

The curriculum is organized around five curriculum areas: Direct Practice, Community and Administration Practice, Research, Policy, and Human Behavior and the Social Environment. Required and elective courses are offered in each curriculum area. Students must complete foundation (first year) required courses before taking advanced (second year) courses. In the advanced year, a specialty is selected in child/family, mental health, and a combination of administration and community practice. First year courses have 5000 numbers; second year courses have 6000 numbers. Master's level students are also allowed to take doctoral level courses with permission of the instructor and MSSW Program Director.

### **Degree Requirements**

The program leading to the degree of Master of Science in Social Work covers a minimum of four semesters for full-time students and requires the completion of 61 semester hours of graduate work including class and field instruction, as well as thesis or integrative seminar (non-thesis option).

In addition to the requirements of the Graduate School, each graduate student in the social work program must (1) maintain at least a B (3.0) overall GPA in all coursework; (2) demonstrate suitability for professional social work practice; and, (3) demonstrate knowledge of and adherence to the Code of Ethics of the National Association of Social Workers and if licensed in Texas the Code of Ethics as currently published by the Texas Council for Social Work Examiners.

At such time as questions are raised by Social Work faculty or field instructors regarding a student's violation of #2 or #3 of the above requirements, the student will be notified and will be provided the opportunity to respond to the Academic and Professional Standards Committee. The committee will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a recommendation may be made to the Dean of the School of Social Work.

Special Note: No credit is given for life and/or work experience.

### **Advanced Standing**

An applicant meeting all regular admissions requirements who have graduated from an accredited undergraduate program in social work will automatically be considered for advanced standing status in the graduate program. Advanced standing is not granted to students admitted on probation.

Advanced standing students may receive credit hour waivers for some undergraduate social work courses which are considered equivalent to the first and second semester courses, provided the student's grades in those courses are B or better. Students may receive course waivers for more than 23 hours, but only 23 hours may be applied to the 61-hour MSSW degree.

Students requesting advanced standing status who completed their BSW degrees more than six years prior to the semester in which they propose to begin their graduate studies must provide a documented summary of their work as a social worker. Students who have completed their BSW degrees within six years of their planned start of studies are not required to submit these materials. Advanced standing will be granted on a case-by-case basis contingent upon evaluation of transcripts and any other required supporting information.

### **Advanced Specialty Program**

An applicant meeting all regular admissions requirements who has completed the foundation year at an accredited master's program in social work may request admission into the Advanced Specialty MSSW program.

Students in the Advanced Specialty MSSW Program may receive credit hour waivers for some graduate level social work courses which are considered equivalent to the foundation year courses taken at an accredited social work program, provided that the grades in those courses are B or better. Students applying to the Advanced Specialty MSSW Program may be required to provide course syllabi for each course taken in the foundation year at their MSSW program prior to entering UT Arlington's program. Students may receive course waivers for more than 23 credit hours, but only 23 hours may be applied to the 61-hour MSSW degree. Additionally, three credit hours may be transferred from foundation year courses taken at another accredited social work program.

Students requesting admission into the Advanced Specialty MSSW program must have completed the foundation year course work no more than six years prior to the semester in which they seek admissions. Admission to the Advanced Specialty MSSW program will be granted on a case-by-case basis contingent upon evaluation of transcripts and any other required supporting information.

### **Dual Degree Programs - On Campus**



Students in social work may participate in one of five dual degree programs whereby they can earn a Master of Science in Social Work and 1) a Master of City and Regional Planning, 2) a Master of Public Administration, 3) a Master of Arts in Urban Affairs, 4) a Master of Arts in Criminology and Criminal Justice, or 5) a Master of Arts in Sociology. By participating in a dual degree program, students can apply some semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from 6 to 18 hours, subject to the approval of Graduate Advisors from both programs.

To participate in the dual degree program, students must make separate application to each program and must submit a separate Program of Work for each degree. Those interested in a dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also information on Dual Degree Programs in the Advanced Degree Requirements section of this catalog.

## **MSSW Programs - Distance Education Programs**

### **UT Arlington Fort Worth Center MSSW Cohort Program**

The UT Arlington School of Social Work offers an MSSW Degree with a Concentration in Direct Practice that includes a specialization in Children and Families with a Certificate in Administration through our Fort Worth Center location. This program will prepare students to work directly with families and children while also acquiring knowledge in administration that will enhance their ability to assume leadership and administrative positions in social service agencies.

This program is designed to meet the needs of working professionals. Students will take one class at a time in 5-week blocks. Classes will be offered twice each week in the evening (scheduling may be subject to change during the summer semester as well as the intersessions). This will enable students to remain employed full time. The program of work for the degree is scheduled to be completed in 2 years. A new cohort of students will be admitted to the MSSW program at the UTA Fort Worth Center every fall.

Students applying to this program must meet all regular admissions requirements. The application process is the same as for students applying to our traditional MSSW program.

### **UT Arlington / Lubbock Christian University Cooperative MSSW Program**

The UT Arlington School of Social Work in conjunction with LCU offers an Advanced Standing MSSW Degree with a Concentration in Direct Practice that includes a specialization in Children and Families.

This program is designed the needs of students in the Lubbock area. Students applying to this program can expect to complete the required courses both on the LCU campus and online through UT Arlington.

Students applying to this program must meet all regular admissions requirements. An applicant meeting all regular admissions requirements who has graduated from an accredited undergraduate program in social work and meets the Advanced Standing criteria will be eligible for this program. Advanced Standing status is not granted to students admitted on probation.

The application process is the same as for students applying to our traditional MSSW program.

### **MSSW Online Program**

The MSSW Online Program is designed as a cohort that begins every fall and continues through a predetermined 61 hour degree plan at a part-time pace for three years. If you qualify for advanced standing then you will follow a 38-hour degree plan at a part-time pace for two years. Students in this cohort focus on Direct Practice (Children and Families) as their concentration area and are required to complete two field practicums for a total of about 900 hours. The practicum is the only face to face requirement; all of the courses are fully online. Expectations of the courses (assignment requirements, deadlines, discussions, etc...) will vary by instructor.



This program is open for anyone who qualifies for admission into the MSSW Program. **At this time you must be a Texas resident currently living in Texas to apply to the MSSW Online Program.**

### Joint Master's in Social Work and Masters in Public Health (MSSW/MPH)

The Master of Social Work/Master of Public Health (MSSW/MPH) joint degree is a collaborative program between The University of Texas at Arlington School of Social Work and The University of Texas School of Public Health (UTSPH). The MSSW/MPH joint degree program was developed to respond to the need for a greater integration of the knowledge and skills shared by social work and public health professionals. The MSSW/MPH program will prepare students to integrate social work and public health knowledge and skills in their professional lives as practitioners and researchers.

The curriculum is a general plan for the MSSW/MPH. By taking a specified number of approved courses in both programs, it is possible for students to complete both degrees in three years (two years for Advanced Standing students), while customizing the program to meet their interests and educational goals. Flexibility in the program allows most students to combine the MPH and MSSW requirements of a practicum with other learning experiences from the MSSW program. Students are guided by a Student Advisory Committee comprised of faculty from both participating school programs.

Students seeking admission to the MSSW/MPH program must meet the application requirements of each University, apply and be admitted to both degree programs before being considered for acceptance into the dual degree program by the MSSW/MPH Coordinating Committee. Please note: admission to one program does not ensure admission to the other.

Students are responsible for tuition and fee payments for courses taken in both schools, and upon successful completion of the degree requirements will receive a diploma from each university. Current MSSW or MPH students may decide to add the joint degree option to their educational plan and receive credit for courses. MPH students must declare their intent to enter the program by the completion of their second semester. MSSW students must declare their intent to enter the program by the completion of the foundation year (2 year students) or completion of 9 credit hours (advanced standing students)

### Part-Time Students

Admission and degree requirements for part-time students are the same as those for full-time students. Likewise, part-time students must maintain the performance level required of full-time students.

## Doctor of Philosophy in Social Work

### Ph.D. Program Goals

The Doctor of Philosophy in Social Work is designed to prepare scholars to advance knowledge development and dissemination for the profession of social work. The program builds on the premise that social welfare and social work must be scientifically and theoretically based and continually responsive to changing local and global societal needs. Upon completion of the Ph.D. Program students will display competency in theory and theory development; knowledge and skills in research methods and data analysis; theory, research, and policy as applied to a specialty practice area; understanding and commitment to the underlying values, ethics, and social and economic justice perspectives in the scientific inquiry in social work; and theory and research as applied to social work practice, policy, and social work education. Graduates of the program are expected to make a significant contribution to the profession of social work through their own continued research, teaching, scholarship and service.

A specialty in comparative social policy is offered in conjunction with the Universidad Autonoma De Nuevo Leon (UANL) Monterrey, Mexico. Students will complete their first year of doctoral courses at their home institution. Student will complete second year courses at the alternate

institution. Classes at UANL are conducted in Spanish and taught by UANL faculty. Classes at UT Arlington are conducted in English and are taught by UT Arlington faculty.

### Ph.D. Program Objectives

Upon completion of the Ph.D. Program students will display competency in:

1. Theory and theory development.
2. Knowledge and skills in research methods and data analysis.
3. Theory, research, and policy as applied to a specialty practice area.
4. Understanding and commitment to the underlying values, ethics, and social and economic justice perspectives in the scientific inquiry in social work.
5. Theory and research as applied to social work practice, policy and social work education.

### Admission Criteria for the Ph.D. Program

To be admitted to the Doctor of Philosophy in Social Work program, an applicant must satisfy the general admission requirements of the Graduate School and his or her academic record must show preparation for advanced study in social work. The students accepted for admission are those whose academic achievements, previous experience, and aptitude for research and scholarship indicate the potential for achieving the objectives of the program. In addition, admission to the program requires:

1. Master's degree in Social Work or related field. For applicants with a master's in a related field, a background in social and behavioral science and research methods is desirable.
2. Undergraduate GPA of 3.0 minimum, in the last 60 hours as calculated by the Graduate School.
3. Master's GPA of 3.4 minimum as calculated by the Graduate School.
4. A Graduate Record Examination (GRE) or EXADEP score that evidences an ability to do satisfactory graduate work if master's GPA is less than 3.4.
5. Transcripts of all undergraduate and graduate work.
6. Curriculum vita.
7. Academic goals consistent with the Social Work Program.
8. Professional writing sample.
9. Evidence of statistics course in the last 5 years.
10. Three letters of recommendation, preferably from those holding a Ph.D., indicating professional and academic potential and addressing the areas of writing skills and analytical ability.
11. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, minimum score of 7.0 on the IELTS, or a minimum TOEFL iBT total score of 90 with additional scores that meet or exceed 23 for the written section, 23 for the speaking section, 22 for the reading section, and 22 for the listening section to meet this requirement.

**Unconditional Ph.D. Admission:** An applicant is admitted unconditionally when all documentation relating to admissions criteria is received and performance on the criteria is acceptable.

**Probationary Ph.D. Admission:** An applicant who's Master's GPA is below 3.4 or that scores GRE or the EXADEP do not indicate ability to do satisfactory graduate work may be admitted on probation when performance on the majority of the remaining criteria is acceptable.

**Provisional Admission:** An applicant unable to supply all required documentation prior to the admission decision deadline but that otherwise appears to meet admission requirements may be granted provisional admission.

**Denial of Ph.D. Admission:** Candidates may be denied admission if they have less than satisfactory performance on a majority of the admissions criteria.

**Deferred Admission:** A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

An application for admission, transcripts of previous academic work and Graduate Record Examination or EXADEP scores must be submitted to the Graduate School of the University. An additional separate application and supporting materials must be sent to the Graduate Advisor, Ph.D. in Social Work Program.

### Degree Requirements

The program leading to the degree Doctor of Philosophy in Social Work covers nine semesters (three years) of full-time study and requires the completion of 48 semester hours of graduate work including coursework, a qualifying examination, a comprehensive specialty examination and a dissertation. Students and their faculty supervisory committee together develop a plan of study geared to the students' interests. Included in this plan are a set of required and elective courses in which students pursue their specialized interests.

1. 18 hours of Core coursework.
2. The core coursework qualifying examination must be satisfactorily completed before progressing in the program.
3. Six hours of nine hours Research Practicum.
4. Six hours electives selected from relevant graduate courses offered outside the School of Social Work.
5. Upon completion of 36 hours of required or elective coursework, the specialty comprehensive examination is taken prior to application for candidacy and registration for dissertation.
6. Three hours of dissertation tutorial taken upon successful completion of comprehensive specialty examination.
7. Nine total hours of dissertation must be taken for a student to graduate.

Successful completion of both the core qualifying examination and the comprehensive specialty examination in the area of study to advance the student to candidacy at which time he or she devotes time to the completion of the dissertation. The last step before the degree is awarded is the successful final defense of the dissertation.

Doctoral students must demonstrate knowledge of and adherence to the Code of Ethics of the National Association of Social Workers and the Code of Ethics as currently published by the Texas State Board of Social Worker Examiners.

## SOCW Courses

### SOCW5301 – HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT I

3 Lecture Hours · 0 Lab Hours

Exploration of behavioral and social science knowledge of human behavior and development through the life course. Examines major systems in society: individual, group, family, and community; and the diversity of ethnicity, race, class, sexual orientation, and culture.

### SOCW5303 – FOUNDATIONS OF SOCIAL POLICY AND SERVICES

3 Lecture Hours · 0 Lab Hours

Examines how social goals are met by social welfare institutions. Conceptual schemes are developed for analyzing the structure of social welfare institutions and evaluating social welfare sub-systems. The social work profession also is examined in the context of the evolution and function of the contemporary American social welfare system. Required of all first-year students.

### **SOCW5304 – GENERALIST MICRO PRACTICE**

**3** Lecture Hours · **0** Lab Hours

This foundation level course introduces graduate students to both theory and methods for social work practice with individuals, families, and small groups. It emphasizes a generalist perspective, beginning interviewing and relationship skills, problem assessment, goal setting, and contracting. Special attention is given to the common roles assumed by social workers (e.g. facilitator, broker, advocate). Required of all except advanced standing students.

### **SOCW5306 – GENERALIST MACRO PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Examines generalist community and administrative practice roles, the perspectives of strengths, empowerment, evidence-based practice, and global practice along with the values of social justice, diversity, and participation. Specific attention is given to assessing community assets and needs. Required of all except advanced standing students.

### **SOCW5310 – MICRO AND MACRO PRACTICE FIELD SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Integration of social work knowledge, theory, and skills learned in the classroom with practical application in social work setting. Prerequisite: SOCW 5301, 5304, 5306, and concurrent enrollment in SOCW 5551.

### **SOCW5317 – HUMAN BEHAVIOR AND DIVERSE POPULATIONS**

**3** Lecture Hours · **0** Lab Hours

Introduction to theoretical, practical, and policy issues related to race, ethnicity, and women. Historical, political, and socioeconomic forces are examined that maintain racist and sexist values, attitudes, and behaviors in society and all levels of organizational behavior. The importance and contribution of globalization, social justice and diversity are explored.

### **SOCW5322 – RESEARCH AND EVALUATION METHODS IN SOCIAL WORK I**

**3** Lecture Hours · **0** Lab Hours

This course is designed to provide students with an understanding of and ability to use the evidence-informed practice process to identify, analyze and apply evidence-informed interventions. Students will be able to comprehend both quantitative and qualitative research and to synthesize strengths and weaknesses of the social work literature. Students will be able to synthesize and evaluate research in terms of its content, quality, and applicability to clients. Students will understand scientific and ethical approaches to building knowledge to apply to and evaluate the impact of interventions on clients or clientsA presenting problems.

### **SOCW5551 – APPLIED SOCIAL WORK PRACTICE I**

**5** Lecture Hours · **0** Lab Hours

Practical internship experience in the field with a social work agency. Course hours are completed by contacting the agency you are assigned to. Please contact the Field Office for more information. Prerequisites: SOCW 5301, 5304, and 5306.

### **SOCW6151 – APPLIED SOCIAL WORK PRACTICE II**

**1** Lecture Hour · **0** Lab Hours

### **SOCW6190 – TUTORIAL**

**1** Lecture Hour · **0** Lab Hours

Arrangements may be made for a directed and supervised tutorial in a select area of special interest to the student.

### **SOCW6251 – APPLIED SOCIAL WORK PRACTICE II**

**2** Lecture Hours · **0** Lab Hours

### **SOCW6301 – ADVOCACY AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Politics are key to developing social policy. Students learn theory and skills to impact social and distributive justice at local, state and national levels. Examines the role of the social work profession in politics. This course may be chosen as a Policy, Administrative Practice, or Community Practice elective. Prerequisite: SOCW 5303. Corequisite: SOCW 5310 & SOCW 5551.

### **SOCW6303 – POVERTY, INEQUALITY AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

This course examines the nature and extent of poverty and inequality in the United States, their causes and consequences, and the debate concerning the role of government in providing anti-poverty programs. Many points of view concerning social and distributive justice are presented, from the radical left to radical right. Prerequisite: SOCW 5303. Corequisites: SOCW 5310 & SOCW 5551.

### **SOCW6304 – SOCIAL POLICY AND CHILD WELFARE**

**3** Lecture Hours · **0** Lab Hours

Examination of current policies, programs, and practices. Attention given to new perspectives on the delivery system and staffing in child welfare. Through analysis and research, students are provided knowledge for more effective practice in the field of child welfare. Prerequisite: SOCW 5303.

### **SOCW6305 – INTEGRATIVE SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Focuses on issues and aspects of practice of broad concern to the profession of social work. Faculty members serve as consultants and resource persons to seminar members. Required of all non-thesis students in their final semester of coursework. Grade of C or better must be earned in this seminar to pass. If this requirement is not met, the student must repeat the course. Milestone: all courses have been taken for the degree except those left in the last semester, including this course. If fall or spring, no more than 15 hours can be left; if summer, no more than 12 hours can be left. Prerequisite: SOCW 6451 or SOCW 6851

### **SOCW6306 – CLINICAL ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Reviews and builds on the fundamentals of clinical assessment. Topics are covered in considerable depth and practiced with social work clients. Advanced topics include behavioral observation, self-anchored rating scales, client surveys, standardized measurement and scales, single-subject designs, family assessment tools and categorical systems. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6310 – SEMINAR IN GENDER ISSUES**

**3** Lecture Hours · **0** Lab Hours

Explores women's issues in human behavior theory, practice theory, and policy. The historical, political, and socioeconomic forces that maintain sexism are discussed. Environmental influences are examined in relation to social justice, social work values, knowledge, and skills. Prerequisite: SOCW 5301, SOCW 5317.

### **SOCW6311 – SEMINAR IN DIRECT METHODS IN COUPLES COUNSELING**

**3** Lecture Hours · **0** Lab Hours

Examination of various psychological, social, and cognitive-behavioral treatment approaches to problems in intimate coupling. Emphasis is placed on the assessment of the sources and patterns of dissatisfaction and conflict, the selection and ordering of treatment strategies, and application of treatment techniques consistent with determined goals. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

### **SOCW6312 – GROUP DYNAMICS I AND SOCIAL WORK PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Examines contemporary social-psychological concepts and small group research, with a view to testing their applicability to practice propositions and operational principles, in work with both task and personality satisfaction groups. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6314 – ADVANCED ADMINISTRATIVE PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Focuses on selected topics, issues, and skills for effective social work administration. Content includes leadership, worker motivation, resource development, interagency relations and managing conflict and diversity in a climate of scarce resources. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6315 – ADVANCED COMMUNITY PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Focuses on topics, issues, and skills for mobilizing neighborhoods, communities, and client groups to solve collective human problems. Content includes the politics of empowerment, mobilizing coalitions, locating resources, and mediating conflict. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6317 – DIRECT PRACTICE IN HEALTH CARE**

**3** Lecture Hours · **0** Lab Hours

Explores the central contribution of social work to comprehensive health care and health in environment theory and evidence; advanced knowledge and skills in human behavior theory relevant to health care, as well as social work interventions to assess and ameliorate the psychological effects of illness and disability, are included along with emerging roles for social work in prevention and health maintenance. Prerequisite: SOCW 6325.

### **SOCW6318 – DIRECT PRACTICE WITH AGING**

**3** Lecture Hours · **0** Lab Hours

Course presents an overview of current issues in the care, treatment, and delivery of social services to the aging. Students learn practice procedures designed to equip them with the skills needed for effective social work practice and review major theories on aging. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6319 – SOCIAL POLICY AND MENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

Studies programs and policies in the field of mental health. An analytical model is employed in the process of examining critical issues in the mental health arena. Prerequisite: SOCW 5303.

### **SOCW6320 – PERSONAL RELATIONSHIPS**

**3** Lecture Hours · **0** Lab Hours

Explores theoretical and empirical data on diverse personal relationships at the follow stages of relationship: initiation, maintenance, and termination. Identifies areas for intervention. Prerequisite: SOCW 5301 and 5317.

### **SOCW6323 – PERSPECTIVES IN MENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

Examines and analyzes theories of mental health and disorders, perspectives on the etiology and epidemiology of mental disorder and the societal response to problems in mental health of vulnerable and oppressed populations. Prerequisite: SOCW 5301, SOCW 5317.

### **SOCW6324 – RESEARCH AND EVALUATION METHODS IN SOCIAL WORK II**

**3** Lecture Hours · **0** Lab Hours

This course is designed to provide students with an understanding of and ability to analyze, monitor, and evaluate evidence informed interventions and human service programs. In this course quantitative and



qualitative research methods and approaches are applied to the scientific and ethical evaluation of evidence informed interventions and human service programs. Research skills and knowledge are presented from the perspective of promoting diversity and social and economic justice in the evaluation of social work. Prerequisite: SOCW 5322 or advanced standing status.

### **SOCW6325 – ADVANCED MICRO PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Builds on the generalist perspective and the basic familiarity with social work processes (such as problem identification, assessment, contracting, plan implementation, and outcome evaluation) in the context of (1) existing psychotherapeutic modalities, and (2) the particular client characteristics that lend themselves to specific change modalities. Required of all DP students. Prerequisite: SOCW 5304, SOCW 5310, and SOCW 5551.

### **SOCW6326 – DIRECT PRACTICE WITH CHILDREN AND FAMILIES**

**3** Lecture Hours · **0** Lab Hours

Focuses on the characteristics, strengths, and service needs of children and their families. Addresses assessment and intervention skills to work effectively with a variety of child, parent(s), and family problems. Specific techniques considered include child therapy, play therapy, behavioral contracting, cognitive-behavioral interventions, and crisis intervention. Required of all DP students specializing in Children and Families. Prerequisite: SOCW 6325 or concurrent enrollment.

### **SOCW6328 – SOCIAL POLICY RESEARCH AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Seminar examining methods for analyzing social policies and for assessing effects of policy. Students evaluate and apply different models for social policy analysis, including comparative models. Students work with social indicators and other data sources used in policy research. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6329 – SOCIAL WORK, LAW, AND THE FAMILY CODE**

**3** Lecture Hours · **0** Lab Hours

Overview of legal principles and procedures as they apply to social workers and their interaction with clients. Particular attention given to the broad area of family law. Areas of mental health law, children's rights, consumerism, malpractice, courtroom testimony, criminal law, estates, and community legal services covered. This course is an elective only; does not meet the requirements for a second year policy course. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment. CAP students: SOCW 6371.

### **SOCW6330 – CHILD DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Reviews and analyzes theoretical and empirical approaches to understand the development of children through adolescence; explores implications for practice and policy with children and adolescents. Prerequisite: SOCW 5301 and SOCW 5317.

### **SOCW6331 – THEORIES OF FAMILY**

**3** Lecture Hours · **0** Lab Hours

Reviews a variety of theoretical approaches useful in understanding the family. Implications for practice at the policy, community, and interpersonal levels are discussed. Prerequisite: SOCW 5301 and 5317.

### **SOCW6332 – ADULT DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Explores selected issues and analyzes theories related to early and middle adulthood. Issues pertinent to practice, such as the developmental change processes of diverse populations, are also examined. Prerequisite: SOCW 5301 and SOCW 5317.

### **SOCW6333 – AGING IN AMERICAN SOCIETY**

**3** Lecture Hours · **0** Lab Hours

This course presents the major theories of aging, in the United States and across cultures, and explores the diverse factors of aging from various perspectives including psychological, biological, sociological, and spiritual. Theories are integrated into practice thus providing students a sound foundation for social work practice with older adults. Students develop skills for completing multi-dimensional assessments, and effective social work interventions with and on behalf of older adults. Prerequisite: SOCW 5301 and 5317.

### **SOCW6334 – WOMEN AND FAMILY POLICY**

**3** Lecture Hours · **0** Lab Hours

Policies affecting women and the family; interaction of women with other social institutions (family, economy, policy); the unique impact of policies upon families and women of color; cross cultural comparisons and political strategies; the role of the social work profession in this policy field. Prerequisite: SOCW 5303.

### **SOCW6336 – DIRECT PRACTICE IN MENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

Focuses on assessment and intervention with those evidencing acute and chronic mental health problems and disabilities. The course addresses the delivery of services to various populations (children, adolescents, and adults), service delivery systems (community mental health, managed behavioral health care), and a wide range of problems. Topics include well-being, ethics, case management, treatment planning, managed care, DSM, PIE, and substance abuse. Required of all DP students specializing in Mental Health. Prerequisite: SOCW 6325.

### **SOCW6337 – PSYCHODYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Applies psychodynamic theory derived from Freud and ego psychologists to the life cycle. Draws implications for social work practice with diverse groups. Prerequisite: SOCW 5301 and SOCW 5317.

### **SOCW6338 – SOCIAL SERVICES AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Broad acquaintance with, and analysis of, the social services and their role within social welfare policy. A variety of social services examined as well as modes and methods of providing these services, degree of effectiveness of various services in adequately serving clients, service gaps or duplication, and related areas. Prerequisite: SOCW 5303.

### **SOCW6339 – PROGRAM EVALUATION**

**3** Lecture Hours · **0** Lab Hours

Presumes basic research competence on part of student. Focus on sociopolitical aspects of program evaluation as a specialized use of scientific methods and community practice skills. Relationships between program evaluation and program planning or administration stressed. Prerequisite: SOCW 5322. CAP students: SOCW 6371 or concurrent enrollment.

### **SOCW6340 – ADVANCED RESEARCH METHODS IN HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Acquaints students at an advanced level with research methodology as it applies to the human services. Includes techniques and tools of research, problem conceptualization, measurement, research and instrument design and data collection methods. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6341 – ADVANCED STATISTICAL METHODS IN HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Advanced statistical applications in the human services. Emphasis on multivariate statistical approaches including multiple regression analysis, logistic regression, structural model analysis using LISREL or EQS. Prerequisite: SOCW 6347.



## **SOCW6342 – HUMAN BEHAVIOR IN MACRO ENVIRONMENTS**

**3** Lecture Hours · **0** Lab Hours

Offers advanced students the opportunity to study people's behavior within large and complex social settings including: natural helping networks and ontological communities, organizations and bureaucracies, and social and political movements. Meets the advanced Human Behavior requirement for students pursuing the Community and Administrative Practice (CAP) specialization. Prerequisite: SOCW 5301 and SOCW 5317 or advanced standing status.

## **SOCW6343 – INTIMATE PARTNER VIOLENCE**

**3** Lecture Hours · **0** Lab Hours

This course covers theoretical frameworks for understanding and addressing intimate partner violence as well as culturally sensitive prevention and intervention practice models. Prerequisite: SOCW 6325; Co-requisite: SOCW 6326 or SOCW 6336.

## **SOCW6344 – TREATMENT OF CHILDREN AND ADOLESCENTS**

**3** Lecture Hours · **0** Lab Hours

Overview of the literature which describes physical, psychological, and cultural characteristics unique to childhood and adolescence. Attention then turned to treatment principles, and the specification of procedures for the amelioration of problems common to children and adolescents. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6345 – HEALTH POLICY**

**3** Lecture Hours · **0** Lab Hours

Historical, current, and projected national and local health policies and roles of providers and consumers of health care examined; service demands, economic, access, and regulatory issues analyzed; relationships between governmental, voluntary, and commercial sectors studied; analytic frameworks for the understanding and development of policies developed. Prerequisite: SOCW 5303.

## **SOCW6346 – TEACHING PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Introduces students to the academic role through teaching practice at graduate and/or undergraduate level supervised by a full-time faculty member. Prerequisite: SOCW 6328, 6340, 6348, 6373.

## **SOCW6347 – INTERMEDIATE STATISTICS**

**3** Lecture Hours · **0** Lab Hours

Statistical applications for doctoral social work students. Emphasizes both parametric and non-parametric techniques, including t-tests, ANOVA, correlation and regression, chi-square, and other non-parametrics. Designed to provide a foundation for advanced multivariate statistical techniques. Prerequisite: acceptance into the Ph.D. program.

## **SOCW6348 – SEMINAR IN QUALITATIVE RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Explores a variety of qualitative approaches to knowledge building and research. Designed to prepare students to carry out research projects within their areas of interest. Content includes discussions of knowledge development, study designs, data collection, analysis, and report writing. Prerequisite: acceptance into the Ph.D. program.

## **SOCW6349 – AGING AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Social welfare policies and programs are examined in terms of the overall impact on the aged and society. Needs and gaps in services to the aged are evaluated, especially concerning minority and low-income aged. Current issues in aging policy are examined. Prerequisite: SOCW 5303.

## **SOCW6350 – SEMINAR IN COGNITIVE-BEHAVIORAL INTERVENTION STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

Explores the integration of cognitive-behavioral and constructivist intervention methods in the treatment of various problems and clinical populations. The theoretical bases of cognitivism, behaviorism, and constructivism are identified and current issues in cognitive-behavioral and in constructivist methods are addressed. Assessment and interventions taught in this course are drawn from evidence-based practice knowledge and informed practice wisdom. Client strengths and individual empowerment are emphasized in formulating assessment and intervention strategies. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6353 – SEMINAR IN FAMILY THERAPY**

**3** Lecture Hours · **0** Lab Hours

Comparison of various approaches to working with the family as a total system; enhancement of cognitive understanding of similarities and differences in theory and goals of family treatment in many fields of practice; integration of strategies and techniques of each method into an individual style of therapy. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6354 – SOCIALLY OPPRESSED GROUPS, SOCIAL EXCLUSION AND SOCIAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

Past and present policies are examined related to people with disabilities, substance abusers, lesbians and gay men, juvenile delinquents, women convicted of criminal offenses, sex offenders and others who for various reasons experience social exclusion, stigma and social control. Theoretical bases of societal reaction to these groups and the impact on social policy and social work practice is considered. Prerequisite: SOCW 5303.

## **SOCW6356 – SEMINAR IN PROGRAM AND PRACTICE EVALUATION**

**3** Lecture Hours · **0** Lab Hours

This course provides hands on opportunities to develop program and clinical evaluation plans for social work/welfare agencies. Educational principles and theoretical foundations are discussed as the actual plans are developed. Students work with agency decision makers and the instructor to generate a plan acceptable to the agency for implementation. Prerequisite: SOCW 6347.

## **SOCW6358 – SOCIAL WORK SUPERVISION**

**3** Lecture Hours · **0** Lab Hours

Introduces the roles, functions, and contexts of social work supervision. Covers administrative and clinical perspectives on the social work supervisor as manager, educator, mentor, mediator, and leader in human service organizations. Prerequisite: Community and Administrative Practice (CAP) students: SOCW 6371 or concurrent enrollment. Direct Practice (DP) students: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6359 – SOCIAL WORK IN SCHOOLS**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to provide an overview of the various social work related theoretical perspectives, models, and programs for intervention with children and their families in the school setting. This includes skills in assessment, prevention, and intervention in providing services to "high risk" students, such as students in poverty and students with disabilities, and addressing issues such as teen parenting, drug and alcohol abuse, and conflict management in the school setting. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

## **SOCW6360 – CLINICAL ASSESSMENT OF CHILD MALTREATMENT**

**3** Lecture Hours · **0** Lab Hours

Examines knowledge/technique in child physical/emotional/sexual abuse, physical/emotional neglect, and exploitation interventions. Includes interviewing, identification, legal issues, assessment/evaluation, case

management, intervention, follow-up. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

### **SOCW6361 – STRESS, CRISIS, AND COPING**

**3** Lecture Hours · **0** Lab Hours

The impact of specific crises on individuals and families will be examined. Typical crises will include life-threatening illness, trauma, physical and mental disability, and death. Assessment and evaluation of an individual's coping ability and appropriate strategies for social work interventions will be studied. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6363 – BUDGETING AND FINANCIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Basic overview of financial management applied specifically to human service agencies; emphases on basic concepts and skill building in budgeting, and fund raising; accounting principles, financial statements, and computerized financial information systems also covered. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6365 – SEXUAL AND GENDER IDENTITIES**

**3** Lecture Hours · **0** Lab Hours

Reviews various life experiences, challenges and psychosocial theories affecting lesbian, gay, bisexual, and transgender persons. Identifies social work interventions. Prerequisite: SOCW 5301 and SOCW 5317 or advanced standing status.

### **SOCW6367 – SEMINAR IN ADVANCED STATISTICAL APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

This seminar covers statistical analysis of experimental designs, the General Linear Model and other advanced statistics. The course focuses on applications of statistics using various data sets. Prerequisite: Knowledge of SPSS; SOCW 6341 and 6347.

### **SOCW6368 – SEXUAL ABUSE OF CHILDREN: IDENTIFICATION, ASSESSMENT, CASE MANAGEMENT AND TREATMENT**

**3** Lecture Hours · **0** Lab Hours

Seminar focused on examination of current knowledge and intervention strategies related to child sexual abuse. Topics addressed include techniques of obtaining information, sexual assault assessment procedures, validation, case management, application of change methods, case monitoring and relapse prevention. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

### **SOCW6369 – INTRODUCTION TO HUMAN SEXUALITY AND SOCIAL WORK PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Overview of human sexuality as it relates to social work practice. Human sexuality considered from a biopsychosocial perspective. Emphasis on viewing human sexuality as an interactive process of the total personality. Attention given to various psychological, social and behavioral educational/treatment approaches. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6370 – TREATING PARENT-CHILD RELATIONSHIPS**

**3** Lecture Hours · **0** Lab Hours

Treatment strategies and evaluation methods and research findings relevant to the treatment of parent-child relationships; review of existing parent training literature and commercially available parenting programs. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6371 – COMMUNITY AND ADMINISTRATIVE PRACTICE**

**3 Lecture Hours · 0 Lab Hours**

Surveys theory and builds skills in roles associated specifically with community practice (e.g. community/locality development, social planning, social action) and administrative practice (e.g. supervision, administration, management and management systems). Students complete an advanced assignment in community and/or organizational assessment and program design. Required of all CAP (Community and Administrative Practice) students. Prerequisite: Advanced Standing Student or SOCW 5306, SOCW 5310, and SOCW 5551.

### **SOCW6373 – THEORY AND MODELING BUILDING IN SOCIAL WORK RESEARCH**

**3 Lecture Hours · 0 Lab Hours**

This course gives special emphasis on ways in which theory informs social work research. This course prepares students to perform application and critical analysis of social science and social work theory and theory-driven research. The course involves students in integrating theory, research, and social work practice with the goal of producing models of interventions, programs, and policies. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6380 – TREATMENT OF ADDICTIVE BEHAVIORS**

**3 Lecture Hours · 0 Lab Hours**

Surveys major treatment alternatives, showing addictive behavior patterns such as alcohol/drug abuse or eating disorders. Student conducts field research of 12-step programs, practices interventions, and studies inpatient and outpatient treatment methods with emphasis on relapse prevention. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6384 – MANAGEMENT OF CHILDREN'S AGENCIES AND PROGRAMS**

**3 Lecture Hours · 0 Lab Hours**

Course prepares students for mid-management and administrative roles in public and private child-serving agencies and programs. Includes content about state licensure of child care agencies and administrators and of child placing agencies and administrators, as well as about the legal aspects of child welfare practice. Emphasizes the community context of practice and how agencies can adapt their work to the cultural milieu of clients and others in the environment. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6385 – SOCIAL WORK AND MANAGED CARE**

**3 Lecture Hours · 0 Lab Hours**

Explores the history of managed care in health and social services, the underlying philosophy, and current trends and practice issues. Assesses the potential for conflict between social work values and managed care systems. Builds skills for administrative roles in managed care settings. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6386 – GRANT PROPOSAL DEVELOPMENT SEMINAR**

**3 Lecture Hours · 0 Lab Hours**

Grant proposal development is a fundamental method of accessing funds and developing new programs in the social service arena. In this class, students will identify key funding opportunities in their fields of interest and will write a proposal using an actual federal application and a foundation funding announcement. The majority of the course will be devoted to the development of the skills and knowledge necessary to produce a competitive proposal. These include, but are not limited to: a) needs and capacities assessment, b) program development, c) strategic planning, d) budgeting, e) evaluation, and f) community collaboration. The prerequisite for this course is SOCW 6371 (or concurrent enrollment) or SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6387 – CHILD AND YOUTH POLICY**

**3 Lecture Hours · 0 Lab Hours**

The course centers on a critical examination of current and proposed social policies impacting "at-risk" children and youth. An analytical approach to address the wide arena of national, international, and state child and youth social policies that mandate child custody, health, education, economic supports, juvenile justice, and child protection services. Emphasis will be placed on the role of the social work practitioner in enhancing the well being of children and youth through social policy analysis, development,

implementation, and reform. Prerequisite: SOCW 5303.

### **SOCW6389 – BRAIN AND BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

This course is a second-year blended option in the HBSE, Direct Practice, and CAP sequences. The focus of this course is on current advances in knowledge of the neurobiological underpinnings of human behavior and development, the interaction between those underpinnings and the social context and environment, the relevance to social work practice with individuals, families, groups, programs/organizations, and communities, and related assessment and intervention practice behaviors across several practice domains. The domains include human development, genetics, mental health and substance abuse, cognition, stress and trauma, and violence and aggression. The implications of neurobiological and environmental influences (including public health issues and health disparities) will be examined in terms of social justice, social work values, knowledge, and skills, as well as in terms of the structural and systematic arrangement and delivery of social welfare services at the micro, mezzo, and macro levels. Prerequisite: SOCW 5301 and SOCW 5317.

### **SOCW6390 – TUTORIAL**

**3** Lecture Hours · **0** Lab Hours

Arrangements may be made for a directed and supervised tutorial in a select area of special interest to the student.

### **SOCW6392 – SELECTED TOPICS IN SOCIAL WELFARE**

**3** Lecture Hours · **0** Lab Hours

Topics vary from semester to semester depending on the needs and interest of the students. Prerequisite: permission of instructor.

### **SOCW6393 – THESIS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Initial research in the student's area of concentration, leading to thesis. Prerequisite for 6398. Prerequisite: permission of instructor.

### **SOCW6394 – APPLIED RESEARCH PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Students engage in an active program of applied research under direct supervision of a faculty member.

### **SOCW6396 – SOCIAL WORK EDUCATION: PRINCIPLES AND SKILLS**

**3** Lecture Hours · **0** Lab Hours

Considers a range of ideas in educational thought relevant to the formulation of an analytical appraisal of social work education and training. Educational methods and skills relevant to social work are addressed and practice opportunities offered. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6397 – WRITING FOR PUBLICATION**

**3** Lecture Hours · **0** Lab Hours

This course will explore the world of academic publishing. Students will provide peer reviews of manuscripts, prepare and critique their ideas and draft sections of a manuscript, and present a final manuscript and publication plan. The intent is to help the students increase their chance of publishing manuscripts as a Ph.D. student and as a new faculty member. Although nothing can substitute for having information and research relevant for the field, the art of writing for publication should not be underestimated. Journal publishing, like any other human service endeavor, is easier as you become proficient. Most academics become proficient at communicating their ideas and research through trial and error. However, one's chances of becoming published can be increased by learning from experts in the field. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6398 – THESIS**

**3 Lecture Hours · 0 Lab Hours**

Requires an individual research project in the individual's area of concentration, with a minimum of six semester hours total needed for the project. Satisfactory completion requires approval of the instructor in charge, a supervising committee appointed by the Dean of Graduate Studies. Defense in a final oral examination is required. Prerequisite: permission of the instructor.

### **SOCW6399 – DISSERTATION**

**3 Lecture Hours · 0 Lab Hours**

Preparation and submission of a doctoral dissertation in an area in social work.

### **SOCW6451 – APPLIED SOCIAL WORK PRACTICE II**

**4 Lecture Hours · 0 Lab Hours**

### **SOCW6452 – APPLIED SOCIAL WORK PRACTICE III**

**4 Lecture Hours · 0 Lab Hours**

### **SOCW6694 – APPLIED RESEARCH PRACTICUM**

**6 Lecture Hours · 0 Lab Hours**

Students engage in an active program of applied research under direct supervision of a faculty member.

### **SOCW6698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

Requires an individual research project in the individual's area of concentration, with a minimum of six semester hours total needed for the project. Satisfactory completion requires approval of the instructor in charge, a supervising committee appointed by the Dean of Graduate Studies. Defense in a final oral examination is required.

### **SOCW6699 – DISSERTATION**

**6 Lecture Hours · 0 Lab Hours**

Preparation and submission of a doctoral dissertation in an area in social work.

### **SOCW6851 – APPLIED SOCIAL WORK PRACTICE II**

**8 Lecture Hours · 0 Lab Hours**

Practical application of social work skills in real world environment. Student is assigned to field agency to enhance and practice learned theories. This course is 500 hours of direct client contact in agency setting as provided by the Field Experience Office. Prerequisite: SOCW 5310/5551 and SOCW 6325.

### **SOCW6999 – DISSERTATION**

**9 Lecture Hours · 0 Lab Hours**

Preparation and submission of a doctoral dissertation in an area in social work.

### **SOCW7399 – DOCTORAL DEGREE COMPLETION**

**3 Lecture Hours · 0 Lab Hours**

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours

may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Public Administration](#)

[Urban and Public Affairs](#)

[City and Regional  
Planning](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## City and Regional Planning

School of Urban and Public Affairs

Web [www.uta.edu/supa/graduate/cirp.php](http://www.uta.edu/supa/graduate/cirp.php)

Phone 817.272.2338

Fax 817.272.5008

**551 University Hall**

---

### Degrees / Certificates

#### Master's Degrees

City & Regional Planning, M.CIRP.

#### Certificates

Developmental Review Certificate

Geographical Information Systems Certificate (GIS)

---

### Graduate Faculty

#### Graduate Advisor

[Karolyn Field](#)

#### Program Director

[Ivonne Audirac](#)

#### Professor

[Ardeshir Anjomani](#)

[Barbara Becker](#)

[Jianling Li](#)

#### Associate Professor

[Enid Arvidson](#)

[Carl Grodach](#)

#### Assistant Professor

[Karabi Bezboruah](#)

[Yekang Ko](#)

[Andrew Whittemore](#)

---

### Graduate Advisors

#### [Karolyn Field](#)

*City & Regional Planning, M.CIRP.*

#### [Anthony Valdez](#)

*City & Regional Planning, M.CIRP.*

---



## Department Information

### Courses

# Department Information

### Master's Degree Program in City and Regional Planning

- [General](#)
- [Mission](#)
- [Factors considered for admission to the CIRP Master's program](#)
- [Types of Admission](#)

### Dual Degrees

### Graduate Certificates

- [Certificate in Development Review](#)
- [Certificate in Geographic Information Systems](#)

### Ph.D. Program

- [Ph.D. in Urban Planning and Public Policy](#)

## Master's Degree Program in City and Regional Planning

### General

Located in the heart of the Dallas-Fort Worth Metroplex, the fourth largest metropolitan region in the U.S., the [City and Regional Planning Master's Degree Program](#) (MCRP) is situated in an optimal laboratory to study, analyze, and provide planning solutions to contemporary urban problems, such as sprawl, pollution, equity, carbon footprints, economic development, aging infrastructure, and, more generally, contributing to the development of sustainable cities and regions.

The program resides in the School of Urban and Public Affairs' (SUPA) whose [Institute of Urban Studies](#) provides student research and practical experience through the professional planning services it offers to cities across the state of Texas.

### Mission

The MCRP program prepares students for careers as professional planners with public, private and nonprofit organizations. It does this by training students to apply planning theory, knowledge, techniques, and skills to "real world" planning problems through coursework, studios, and internship opportunities.

UTA's City and Regional Planning Master's Degree Program is accredited by the [Planning Accreditation Board](#) (PAB). The program's mission, goals and objectives, and accreditation efforts are shaped in consultation with the MCRP Advisory Board composed of alumni and area practitioners.

### Factors considered for admission to the CIRP Master's program

The CIRP program takes a holistic approach to the application review process. Each applicant file is reviewed individually with equal consideration given to the quantitative and qualitative aspects of the student's record. A complete application includes:

- Graduate Record Exam (GRE) score: Writing (Exceptions: Outstanding UT Arlington)

graduates may qualify for GRE waiver providing they meet certain requirements)

- Undergraduate Grade Point Average (GPA): The undergraduate GPA based on the last 60 hours of course work as calculated by the Graduate School from the official transcript.
- Graduate Record Exam (GRE) scores: Verbal and Quantitative (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Letters of Recommendation attesting to the applicant's potential to do Master's-level work and complete the program. Letters for Master's programs should be from professors or supervisors at work ([download Letter of Recommendation form](#))
- Essay by applicant approximately one double-spaced page in length (approximately 250 words). The Essay is considered both for its content and quality of writing. The Essay should address the following questions: 1. Why do you want to earn a Master's degree in the program for which you are applying? 2. What relevant background and experience do you bring to the program? The essay can also include other concerns you'd like to bring to the attention of the Graduate Advisor or Master's Admissions Committee.
- Non-native English speakers only: TOEFL or IELTS scores (Exceptions: An applicant holding either a Bachelor's or a Master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, or IELTS score for admission purposes.)

### Waivers

i. Submission of GRE scores may be waived for applicants to SUPA master's programs. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree. The student's UT Arlington grade-point average must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study as calculated for admission by the Graduate School; (b) in all undergraduate coursework completed at UT Arlington.

ii. Submissions of TOEFL or IELTS scores may be waived for applicants to SUPA master's programs who hold a Bachelor's or Master's degree from a regionally accredited U.S. college or university.

### Types of Admission

#### Unconditional Admission:

Applicants who meet all the following requirements will be considered for unconditional admission:

1. A preferred minimum Writing GRE score of 4.0
2. Minimum Undergraduate GPA of 3.0
3. A preferred minimum Verbal GRE score of 150 (450 if the test was taken before August 1, 2011), and a preferred minimum Quantitative GRE of 141 (450 if the test was taken before August 1, 2011)
4. Outstanding letters of recommendation
5. Strong, well-written personal essay
6. Non-native English speakers only: TOEFL scores of at least 550 (paper-based), 213 (computer-based), or 79 (iBT) with sectional scores that meet or exceed 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or, IELTS score of at least 6.5.

#### Probationary Admission:

Applicants who do not meet all requirements for Unconditional admission will be considered for Probationary admission on the basis of the strength of all the listed admission factors. Test scores

will not constitute the sole or primary basis for ending consideration of an applicant. Under Probationary admission, special course requirements or other conditions may be imposed by the SUPA Master's Admissions Committee. Applicants who meet all the standards for Unconditional admission except for deficiency in Writing GRE score will be considered for Probationary Admission conditional on completing an approved Writing course in their first semester.

**1. Other types of admission decisions pertaining to Master's applicants:**

- a. **Deferred:** Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admissibility can be determined, may be deferred until records are complete.
- b. **Provisional:** Applicants who are unable to supply all required documentation prior to the admission deadline but who otherwise appear to meet admission requirements may be granted Provisional admission pending submission of complete and satisfactory credentials before the end of the semester in which they have registered in a Provisional status.
- c. **Denied:** Applicants who fail to meet more than one of the admission requirements and for whom the SUPA Master's Admission Committee finds there is insufficient basis to justify any other kind of admission will be Denied admission. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

**Scholarship and Fellowship Criteria**

- Graduate students with a GPA of 3.0 or better who are enrolled in six hours or more are eligible to apply for competitive scholarships and fellowships.
- Scholarships and fellowships for Master's and Doctoral students will be competitively awarded based on consideration of the all admission criteria assessed by their admitting programs.

**SUPA Inadequate Academic Progress Point System**

A student may be subject to dismissal from the program if they accumulate 4 deficiency points during their Master's degree or their Ph.D. Students who complete a Master's degree at SUPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student's record by repeating a course or additional coursework.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

**Curriculum**

The program's curriculum imparts knowledge, skills and values necessary for entering the planning profession. The degree requires completion of 48 hours of study. The generalist core (33 hrs Professional Report or 36 hrs Thesis) is organized into three knowledge tiers: Theory (9 hrs), Analysis and Techniques (9 hrs), and Implementation and Plan Making (12 hrs), plus a Professional Report (3 hrs) or Thesis (6 hrs).

Although students are not required to specialize, with the assistance of the Graduate Advisor, they can choose electives (12 to 15 hrs) to build a program of study in: Urban Design and Redevelopment, Green Cities and Sustainability, or earn a Certificate in Geographic Information Systems (GIS) simultaneously with the degree. They can also build a hybrid program of study that takes advantage of the expertise of the program's faculty.

**Core Courses (33-36 hrs)**

- CIRP 5303** Planning History, Theory and Ethics
- CIRP 5310** Planning, Urban Development and Structure
- CIRP 5308** Metropolitan Sustainability and Plan Making
- CIRP 5363** Leadership and Communication Skills in the Planning Process

**CIRP 5318** Techniques of Planning Analysis I  
**CIRP 5330** Techniques of Planning Analysis II  
**CIRP 5304** Plan Implementation, Zoning, and Regulations  
**CIRP 5316** Land Use Planning Law  
**CIRP 5332** Project Studio or **CIRP 5331** GIS Workshop  
**CIRP 5380** Research Questions in Planning (taken in the penultimate semester)  
**CIRP 5397** Professional Report (3 hrs) **OR CIRP 5698** Thesis (6hrs)

**Elective Courses (12 to 15 hrs)\***

**CIRP 5305** Land Use, Management and Development  
**CIRP 5306** Urban Revitalization  
**CIRP 5309** Transportation/Land Use Modeling and Policy Analysis  
**CIRP 5311** Elements of Urban Design  
**CIRP 5313** Urban Growth Policies  
**CIRP 5322** Economic Development Planning and Policy  
**CIRP 5324** Community Development  
**CIRP 5325** Physical Planning and Urban Design  
**CIRP 5327** Intro to Green Cities and Transportation  
**CIRP 5331** GIS Workshop (CIRP 5357 prerequisite)  
**CIRP 5340** GIS and Suitability Analysis  
**CIRP 5341** Environmental Regulations, Laws, and Planning  
**CIRP 5350** Environmental Planning  
**CIRP 5351** Techniques of Environmental Assessment  
**CIRP 5356** Introduction to GIS  
**CIRP 5357** Intermediate GIS  
**CIRP 5361** Planning Internship

\*Other electives as approved by the Graduate Advisor

**Study Areas**

**Urban Design and Redevelopment (12 to 15 hrs)**

**CIRP 5325** Physical Planning and Urban Design  
**CIRP 5306** Urban Revitalization  
3 OPEN ELECTIVES

**Green Cities and Sustainability (12 to 15 hrs)**

**CIRP 5327** Intro to Green Cities and Transportation  
**CIRP 5350** Environmental Planning  
3 OPEN ELECTIVES

**Certificate**

**GIS Certificate** (12 - 15 hrs). Earned simultaneously with the degree.

**CIRP 5356** Introduction to GIS  
**CIRP 5357** Intermediate GIS  
**CIRP 5331** GIS Workshop  
**CIRP 5340** GIS and Suitability Analysis  
2 OPEN ELECTIVES

See the program's Graduate Advisor for a list of approved electives in each study area, or download a copy from the [MCRP webpage](#). Other courses may be substituted upon approval of the program's Graduate Advisor and/or Program Director.

**Thesis or Professional Report (6 hours thesis students; 3 hours thesis-substitute students)**

All MCRP students must enroll in CIRP 5380 Research Questions in Planning in their penultimate semester to prepare for the Thesis or Professional Report.

Thesis (minimum of 6 credit hours): This option is recommended for students who enjoy research and/or are interested in pursuing a career in research or private consulting, or who intend to obtain another advanced degree. However, this option is also available to students who intend to go into professional planning practice.

Thesis format and submission calendar must adhere to the Office of Graduate Studies' thesis criteria. Thesis students identify a committee chair no later than their penultimate semester and, in consultation with the chair, form a thesis committee consisting of at least three members of the SUPA Graduate Faculty. The thesis committee guides the student's development of research question and choice of research method and analysis. Thesis students must defend their thesis in a public oral examination- open to all members of the faculty- and before all members of the student's thesis committee. The thesis committee must have copies of the thesis at least two weeks prior to the thesis defense. All members of the student's committee must be present at the defense. Thesis students must be enrolled in the appropriate section of CIRP 5698 Planning Thesis (under their committee chair) during the semester they receive advise from their chair and committee for preparing the thesis, as well as during the semester they defend their thesis. Once the student is enrolled in the thesis course, continuous enrollment is required.

Professional Report (3 credit hours): This option is recommended for students who are going into professional practice and/or who desire additional experience beyond the Project Studio course by working on a professional report. This option does not preclude professional report students the opportunity of further pursuing an advanced graduate degree. Students identify a professional report committee chair no later than their penultimate semester and, in consultation with the chair, form a professional report committee consisting of at least three members of the SUPA Graduate Faculty. The professional report committee guides the student's choice of planning project and method of analysis. Professional report students must defend their report in a public oral examination- open to all SUPA graduate faculty and students- and before all members of the student's professional report committee. Professional Report students must be enrolled in the appropriate section (under their committee chair) of CIRP 5397 Professional Report the semester in which the professional report is defended.

## Dual Degrees

To participate in the **dual degree program**, students must make separate application to each program and must meet the admission requirements of each program. Students must be admitted to the second program before completing more than 24 credit hours in the first program and must complete the second degree within three academic years following completion of the first. By participating in a dual degree program, students may apply 6-18 total credit hours jointly to meet the requirements of both degrees, thus reducing the total number of hours required to earn each degree separately (shared courses are subject to approval by Program Advisors of each program). Degree plans, thesis or professional report proposals, and the final thesis or report must be submitted separately for each degree and approved by Program Advisors and relevant committees of each program. The successful candidate is awarded two degrees (not one joint degree).

Those interested in the dual degree program should consult the appropriate Program Advisors for further information and review the statement on Dual Degree Programs in the general information section of the catalog.

Dual degrees can be arranged with any suitable program. Arrangements for the following dual degrees have already been made between M.C.R.P. and the relevant Program Advisors.

M.C.R.P. and M.P.A. (Master of Public Administration)

M.C.R.P. and M.A. (Master of Arts in Urban Affairs)

M.C.R.P. and M.S.W. (Master of Social Work)

M.C.R.P. and M.Arch. (Master of Architecture)

M.C.R.P. and M.S.L.A. (Master of Science in Landscape Architecture)

M.C.R.P. and M.S.C.E. (Master of Science in Civil Engineering)/M.Engr. (Master of Engineering)

M.C.R.P. and M.S.Ev.S.E. (Master of Science in Environmental Science and Engineering)

MCRP students without a Bachelor's degree in Architecture take Path A in the architecture program; those with an undergraduate degree take Path B. All 15 credit hours of electives in the M.Arch. program must be taken in the MCRP program. Only in special instances may students select the thesis substitute plan of the MCRP program.

## Graduate Certificates

### Certificate in Development Review

Certificate Coordinator: Enid Arvidson; [enid@uta.edu](mailto:enid@uta.edu)

The Certificate in Development Review provides training in zoning, subdivision plat review, site design, communication skills, and urban development, while keeping in mind the interests of citizens and the spirit of places. These skills are essential for planners who want to understand proposed development activity, ensure that proposed development is consistent with a city's vision, and facilitate review of development proposals. The program is geared for both entry-level planners/planning technicians, and for professionals in allied fields such as architecture, landscape architecture, law, engineering, and real estate.

The certificate requires completion of 15 hours of graduate-level coursework. All students must take CIRP 5304 Plan and Policy Implementation. Two courses in land use and development are selected from: CIRP 5305 Land Use Planning, Management and Development; CIRP 5306 Urban Revitalization; CIRP 5316 Land Use Law; or CIRP 5322 Economic Development. One course in communication is selected from: CIRP 5308 Metropolitan Sustainability and Plan Making; or CIRP 5363 Leadership and Communication Skills in the Planning Process. Lastly, one course in agencies and policies is selected from: CIRP 5313 Urban Growth Policies or CIRP 5328/URPA 5326 Public Budgeting.

### Certificate in Geographic Information Systems

Certificate Coordinator: Jianling Li; [jili@uta.edu](mailto:jili@uta.edu)

The Geographic Information Systems (GIS) Certificate program is designed for students and professionals wishing to acquire skills in spatial data analysis. GIS is a powerful computer-based analytical tool used at all levels of government, in business, industry, and institutions. GIS skills are a must in many different fields including urban planning, engineering, geology, and the social sciences. In planning for instance, GIS skills provide professionals a spatial analytical edge with application in all areas of planning including land use, environmental, transportation and economic development planning.

Applying for admission to the GIS-Certificate program does not require the GRE or a degree in planning and should be done as a Non-Degree Seeking Special Applicant through the [Graduate School](#). To obtain the 15-credit hour certificate, students must maintain a GPA of 3.0 in their coursework.

Up to 12 GIS-certificate-credit hours earned as a special non-degree seeking student may be applied to the Master's degree in City and Regional Planning, subject to the policies on grades and graduate credit described in the [Graduate School catalog](#)

#### Required (9hrs)

CIRP 5356 Introduction to GIS

CIRP 5357 Intermediate GIS

CIRP 5331 GIS Workshop

And two electives with approval of the GIS Certificate Program advisor:

#### Electives (6hrs):

CIRP 5340 GIS & Suitability Analysis

GEOL 5323 Remote Sensing Fundamentals or

ARCH 5329, and 5340, CSE 5330 and 5356, GEOL 5303, and INSY 5310 and 5335.



## Ph.D. Program

### Ph.D. in Urban Planning and Public Policy

The UPPP Ph.D. program requires a minimum of 48 credit hours beyond the master's degree, including 39 credit hours of coursework and a minimum of 9 dissertation credit hours. The 39 credit hours of coursework include: 6 hours of leveling courses, 9 hours in the required core of urban planning and public policy, 6 hours of methods courses and 18 hours of elected field area courses. Courses and credit hours may be waived for students with relevant previous coursework upon approval of the dissertation supervisor and program director.

Coursework in the required core, which covers core knowledge and competencies in planning and policy, as well as the courses in the selected field areas prepares students for the field exam. At the end of or after their first semester, students select their committee based on their interests and take a diagnostic exam. The student's committee will then guide their course work, including any extra courses needed based on their diagnostic exam as well as dissertation proposal stages.

#### Application Requirements and Deadlines

Along with the Graduate School application requirements, a complete application includes:

1. Official transcripts from colleges and universities attended. Information about submitting transcripts is available in the Graduate Catalog; and
2. Official test score reports for the Graduate Record Exam (GRE) and, for international applicants, the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about submitting official test scores is available from the Graduate Catalog. The ETS code for UTA is 6013; and
3. Three Letters of Recommendation. Letters should attest to the applicant's ability to do Doctoral-level work and complete the dissertation. Letters must be from references who hold a Ph.D. degree; and
4. Essay by applicant approximately one double-spaced page in length (approximately 250 words). The essay is considered both for its content and writing quality. The essay should discuss research agenda, identify the faculty you wish to work with, and state the reasons for wanting to earn the Doctoral degree.

Official transcripts and test scores must be sent directly to the Graduate School by the institution and ETS respectively. Letters of recommendation and personal essay should be sent directly to: UPPP Admissions Committee, SUPA Box 19588, Arlington TX 76019 or email to the program's Graduate Advisor. It is the applicant's responsibility to ensure all application materials are received by February 1. Incomplete applications or applications received after the deadline will be deferred.

UPPP program admits doctoral students for fall and spring semester admissions. The application deadline for the UPPP program is February 1 for Fall semester and July 1 for spring semester.

#### Admission Criteria

Applicants may be admitted unconditionally with a graduate GPA of 3.6, a Verbal GRE score of at least 153 (500 if test was taken before August 1, 2011) and a Quantitative GRE score of at least 144 (500 if test was taken before August 1, 2011), except for international applicants who will also be required to have a score of 213 or higher on the TOEFL (550 or higher on the written TOEFL; 79 or higher on TOEFL iBT). Strength of letters of recommendation and quality of personal statement and Master's degree field of study are also considered.

or

Applicants may be unconditionally admitted with a GPA above 3.7 if they score at least 153 (500) on the Verbal and 140 (400) on the Quantitative subtests or if they score at least 144 (500) on the Quantitative and 146 (400) on the the Verbal subtests.

Applicants not admitted unconditionally may be considered for admission on probation based on factors mentioned above as well as multilingual proficiency, first generation graduate student from

family and community service experience. The Doctoral admissions committee will set the probationary conditions.

The admissions committee may defer the admission decision when a component of the application is incomplete. It may also admit a student provisionally when an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

### **Curriculum and Degree Requirements**

#### **Leveling Courses (6 hours)**

**CIRP 5303** Planning History, Theory and Ethics

**CIRP 5310** Planning, Urban Development and Structure

#### **Required Core Courses (9 credit hours):**

**UPPP 6300** Advanced Urban Theory

**UPPP 6311** Spatial Theory and Policy

**URPA 5306** The Urban Economy

#### **Methods Courses (6 hours):**

**CIRP 5317** Intermediate Data Analysis (also offered as URPA 5342)

**CIRP 5346** Qualitative Methods (also offered as URPA 5344) **or**

**URPA/CIRP 6346** Advanced Data Analysis (based on the Dissertation Committee decision)

### **Urban Planning and Public Policy Field Area Courses (18 hours):**

Students take 18 hours of courses in their elected field area of planning and/or policy, preparing the student for the dissertation and beyond. Courses are determined in consultation and approval with the student's dissertation supervisor and supervisory committee.

Students are encouraged to use faculty resources and the opportunities offered in SUPA and UTA to specialize in following field areas or their combinations:

- Urban Policy and Planning
- Physical Planning, Development and Urban Design
- Land Use/Transportation Analysis, Planning and policy
- Environmental Planning Policy/Sustainability

### **Dissertation (minimum 9 hours)**

#### **Organization**

#### **UPPP Diagnostic**

Students take a diagnostic exam in their first semester or minimum 9 hours of course work so that their supervisory committee can be selected and guide them in their selection of courses. When a student has completed their coursework, they will be given a field exam by their committee. Once the field exam is successfully completed, the student must start work on their dissertation proposal which must be defended within 6 months of their field exam.

#### **Deficiency & Field Courses**

The supervisory committee decides and guides on needed field areas and additional course work based on the deficiencies beginning from the diagnostics process, but more so during the proposal preparation stage and also in the Proposal Defense.

Deficiency courses can be on the selected field area or other needed courses. The final decision on deficiencies will be determined in the proposal defense session.

#### **POSSIBLE COURSES TO ENHANCE FIELD AREAS**

**CIRP 6301** Theoretical Foundations and Ph.D. Workshop (also offered as URPA 6301)

#### **Urban Policy and Planning**



**URPA 5304** Urban Politics  
**URPA 5305** Theories of Urban Society  
**URPA 5311** Social Policy Formation  
**URPA 5309** Intergovernmental Relations  
All SUPA policy courses

### **Physical Planning, Development and Urban Design**

#### **Physical Planning**

CIRP 5305 Land Use, Management and Development  
CIRP 5306 Urban Revitalization  
CIRP 5313 Urban Growth Policies  
CIRP 5340 Environmental/Land-Use Suitability Analysis Using GIS  
CIRP 5358 Intelligent Transportation Systems and Transportation Planning

#### **Urban Design**

CIRP 5311 Urban Design  
ARCH 5306 Urban Design  
LARC 5301 Site Planning and Development Processes  
LARC 5302 Land Development Planning  
LARC 5382 Seminar in Urban Design

#### **Real Estate Development**

CIRP 5345 Planning and Real Estate Development  
CIRP 5313 Urban Growth Policies  
REAE6390 – Seminar in Special Topics in Real Estate  
REAE5350 – Quantitative Methods for Real Estate

### **Land Use/Transportation Analysis, Planning & Policy**

#### **Urban Economics**

URPA 5306 Urban Economy  
CIRP 5322 Economic Development  
URPA 5312 Urban Economic Policy

#### **Land Use/Transportation**

CIRP 5309 Land Use Transportation Analysis & Modeling  
CIRP 5315 Transportation Policies, Programs and History  
CIRP 5305 Land Use, Management and Development  
CIRP 5340 Environmental/Land-Use Suitability Analysis Using GIS  
CIRP 5358 Intelligent Transportation Systems (ITS) and Transportation Planning  
CE 5328 Air Pollution  
CE 5338 System Evaluation  
CE 6306 Public Transit Planning and Operations  
CE 6308 Analytical Models in Transportation

### **Environmental Planning Policy/Sustainability**

#### **Environmental Policy Planning**

CIRP 5342 Environmental Policy (also listed as URPA 5317)  
CIRP 5341 Environmental Regulations: Laws and Planning  
CIRP 5350 Environmental Planning  
CIRP 5340 Environmental/Land-Use Suitability Analysis Using GIS  
CIRP 5351 Techniques of Environmental Assessment

#### **Environmental Science & Engineering**

EVSE 5310 Environmental Systems – Chemical Aspects  
EVSE 5311 Environmental Systems – Geological Aspects  
CE 5324 Transportation and Air Quality  
CE 5329 Environmental Risk Based Corrective Action  
CE 5355 Environmental Permitting

## Field Area Examination

Students are eligible to take the Field Area Examination after completing all courses. The Field Area Exam marks the end of coursework and the beginning of preparing dissertation research proposal. The student must be enrolled in the Graduate School in the semester in which he/she takes the field area exam.

The Field Area exam may result in: 1) unconditional pass and recommendation to proceed to the next phase of the program; 2) approval to remain in the program but a requirement to meet certain specified additional criteria; 3) failure, but with permission to retake the examination after a period specified by the examining committee; or 4) failure with recommendation not to continue in the program.

After the second failure at the Field Area Exam, the student will be dismissed from the program.

Upon successful completion of the Field Area Exam, students start work on their dissertation proposal which must be defended within six months of their field exam.

## Dissertation Proposal

Upon successful completion of the written field area examination, students will work in preparation of their dissertation proposal. This preparation may include independent study or structured courses and is guided by the student's Dissertation Committee. The Dissertation committee may advise the student to take URPA 6301 Theoretical Foundations and Ph.D. Workshop, which provides theoretical background and techniques to prepare the student for completing the dissertation proposal. Students must also work closely with their dissertation supervisor and committee to develop their dissertation proposal. A formal proposal defense must be held, and the proposal must be formally approved by the dissertation committee before the student may continue to complete the dissertation. The dissertation represents the culmination of the student's academic efforts and so is expected to demonstrate original and independent research activities and be a significant contribution to knowledge.

## Dissertation

A student receiving advice and assistance from a faculty member in the preparation of a dissertation must register for the appropriate course commensurate with the student's level of effort that is equivalent to an organized course of the same **credit value**. Once the student is enrolled in the dissertation course, continuous enrollment is required. The student must accumulate a minimum of nine dissertation hours to graduate.

The Graduate School offers Dissertation Seminars each semester and encourages all Dissertation students to attend.

Doctoral students must enroll in a minimum of 3 dissertation hours (7399) in the term designated as their completion term. Students may designate only one term as the completion term. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W or F and must enroll in a minimum of 6 hours of dissertation research (6699 or 6999) every term until graduation.

The dissertation defense is a public oral examination open to all members (faculty, students and invited guests) of the University community. Questioning of the candidate will be directed by the student's dissertation supervising committee. All members of the student's committee must be present at the defense. Although the defense is concerned primarily with the dissertation research and its interpretation, the examining committee may explore the student's knowledge of areas relevant to the core of the dissertation problem.

The dissertation defense may result in a decision that the candidate has 1) passed unconditionally; 2) passed conditionally with remedial work specified by the committee; 3) failed, with permission to be re-examined after a specified period; or 4) failed and dismissed from the program. The dissertation must be approved unanimously by the student's dissertation supervising committee and by the Dean of Graduate Studies.

## **CIRP Courses**

### **CIRP5191 – CONFERENCE COURSE**

1 Lecture Hour · 0 Lab Hours

Special subjects and issues as arranged by individual students and faculty members. May be repeated for credit.

### **CIRP5193 – MASTER'S COMPREHENSIVE EXAMINATION**

1 Lecture Hour · 0 Lab Hours

Directed study, consultation and comprehensive examination over coursework leading to thesis substitute for MCRP degree. Required of all thesis substitute students who were admitted to the MCRP program prior to Fall 2009 and who are not enrolled in thesis or other thesis substitute courses during semester in which they plan to graduate. Students beginning the MCRP program in Fall 2009 or after may not choose the Master's Comprehensive Examination as a thesis substitute option and may not enroll in this course.

### **CIRP5197 – PROFESSIONAL REPORT**

1 Lecture Hour · 0 Lab Hours

Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in CIRP 5193.

### **CIRP5297 – PROFESSIONAL REPORT**

2 Lecture Hours · 0 Lab Hours

Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in CIRP 5193.

### **CIRP5300 – FOUNDATIONS OF URBAN THEORY**

3 Lecture Hours · 0 Lab Hours

Spatial development of human settlements, their life cycles, expansion, and decay. Covers key theories of social, spatial, and economic structures of cities, nineteenth century to present. Considers influences of urban form and development on class, race, gender, and community.

### **CIRP5303 – PLANNING HISTORY, THEORY AND ETHICS**

3 Lecture Hours · 0 Lab Hours

Various theories of planning including rational comprehensive, communicative action, social learning, and radical planning. Sets theories within their historical contexts, and examines the social and political details of each era to show the development of diverse planning practices and theories of planning. Evaluates the values embodied in different theories and their relationship to practice and social justice, including planning ethics as contained in the AICP Code of Ethics and Professional Conduct.

### **CIRP5304 – PLAN IMPLEMENTATION, ZONING, AND REGULATIONS**

3 Lecture Hours · 0 Lab Hours

Introduction to plan preparation and implementation. Topics include zoning, subdivision regulations, form-based codes, site planning, strategic planning, and comprehensive planning.

### **CIRP5305 – LAND USE, MANAGEMENT AND DEVELOPMENT**

3 Lecture Hours · 0 Lab Hours

Assesses land use, management and development and considers new directions. Relates comprehensive planning, environmental management, and land use.

### **CIRP5306 – URBAN REVITALIZATION**

**3 Lecture Hours · 0 Lab Hours**

Examines various urban revitalization projects from coordinated, large-scale ventures to grassroots and informal neighborhood initiatives. Emphasis on the history, logic, politics, and implementation of these projects as well as their physical, social, and economic outcomes.

### **CIRP5307 – URBANIZATION IN THE DEVELOPING WORLD**

**3 Lecture Hours · 0 Lab Hours**

Explores the social, political and spatial dimensions of urbanization processes in developing countries. Covers urban, social, and cultural movements as well as development, processes of urban-rural migration, and globalization. The course will cover all developing regions of the world with an emphasis on Latin American countries.

### **CIRP5308 – METROPOLITAN SUSTAINABILITY AND PLAN MAKING**

**3 Lecture Hours · 0 Lab Hours**

Provides the background for sustainability planning at the city and metropolitan levels including plan making (e.g., comprehensive plans, small area plans, functional plans, etc.). Explores the relationship of environmental sustainability to economic vitality and social equity including planning ethics.

### **CIRP5309 – TRANSPORTATION/LAND USE MODELING AND POLICY ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Overview of transportation/land use with specific transportation models and simulation methods; topics include economic theory of travel demand, land use models, UTPS framework for travel demand estimation, disaggregated travel demand models and abstract mode models.

### **CIRP5310 – PLANNING, URBAN DEVELOPMENT AND STRUCTURE**

**3 Lecture Hours · 0 Lab Hours**

Overview of functional areas of planning (e.g., urban design, housing, transportation, etc.); fundamentals of urban structure and development of cities and regions including environmental, social, economic, and political factors and issues affecting urban settlements; global dimensions of planning.

### **CIRP5311 – ELEMENTS OF URBAN DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Study of contemporary urban form and environmental design, emphasizing visual-spatial qualities, social needs and economic linkages. Examination of processes, methods and techniques for solving urban design problems.

### **CIRP5312 – STRATEGIC PLANNING, POLICY AND MANAGEMENT**

**3 Lecture Hours · 0 Lab Hours**

Readings and case studies of strategic planning and management in the public and non-profit sectors; application of principles to an actual situation, involving stakeholder identification, environmental scanning, and formulation of mission statements, goals, and strategies. Offered as CIRP 5312 and URPA 5357. Credit will be granted only once.

### **CIRP5313 – URBAN GROWTH POLICIES**

**3 Lecture Hours · 0 Lab Hours**

Study of the political, societal and physical policies involved in urban growth management.

### **CIRP5315 – TRANSPORTATION POLICIES, PROGRAMS AND HISTORY**

**3 Lecture Hours · 0 Lab Hours**

Transportation and related programs and policies in relation to city development and housing patterns. Interdependencies of land use, building development, and social change are explained as transportation-

related.

### **CIRP5316 – LAND USE PLANNING AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Explores the law of land use in the context of the American legal, economic, and political systems. Examines leading court decisions and precedents for their background, content, and applicability to contemporary land use. Offered as CIRP 5316 and URPA 5331. Credit will be granted only once.

### **CIRP5317 – INTERMEDIATE DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An intermediate level examination of statistical and research techniques appropriate to urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, Analysis Of Variance (ANOVA), logit and probit models, and techniques for data reduction (e.g., factor analysis). Prerequisite: URPA 5302. Offered as URPA 5342 and CIRP 5317; credit will be granted only once.

### **CIRP5318 – TECHNIQUES OF PLANNING ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Introduction to analytical techniques used in urban and regional planning. Topics include: census data and geography and introduction to GIS, demographic analysis, cost-benefit analysis, economic base analysis, gravity models, and displaying and communicating data analysis and results in graphic, written, and oral forms.

### **CIRP5319 – AGENCIES OF PLANNING AND ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Contemporary managerial functions involved in running public, private, or non-profit organizations: goal setting, planning, organizing, delegating and motivating others, personal productivity and motivation, time and stress management, controlling, and project management.

### **CIRP5320 – DATABASE MANAGEMENT FOR URBAN PLANNING AND ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Concepts and computer applications of data management. Topics include data sources, data models, database design, data query, data analysis, and database management techniques for urban planning, management and administration. Credit will be given only once.

### **CIRP5321 – VISUAL BASIC AND GIS**

**3** Lecture Hours · **0** Lab Hours

Provides an introduction to the techniques and applications of computer graphics and mapping for presenting socioeconomic information in graphic and spatial form.

### **CIRP5322 – ECONOMIC DEVELOPMENT PLANNING AND POLICY**

**3** Lecture Hours · **0** Lab Hours

Introductory seminar in subnational economic development programs in the U.S. Covers basics of location theory, economic planning, budgeting, incentives, public and private revenue sources, analysis methods such as central place and economic base, intergovernmental efforts, redevelopment, high tech, trade and/or tourism.

### **CIRP5323 – HISTORIC PRESERVATION**

**3** Lecture Hours · **0** Lab Hours

Covers elements of historic designation, rehabilitation, financial incentives, district regulations, and preservation impacts.

## **CIRP5324 – COMMUNITY DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on current problems of community development and neighborhood revitalization. Housing, community assets, the roles of community development corporations and social capital in cities, and community economic development will be analyzed. Federal, state, and local policies, with grassroots initiatives evaluated for effectiveness on promoting alternatives for community building and organizing. Also offered as URPA 5313; credit will be granted only once.

## **CIRP5325 – PHYSICAL PLANNING AND URBAN DESIGN**

**3** Lecture Hours · **0** Lab Hours

Introduction to basic concepts in urban design and physical planning. Provides an understanding of how built environments evolve, and how they can be creatively planned and designed so as to meet social and ecological goals. Special attention to principles and analyses related to the physical planning of neighborhoods and streets, as well as patterns of urban form and public places.

## **CIRP5326 – CULTURAL PLANNING AND URBAN DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course examines 1) the composition of the creative economy in cities around the world, 2) arts, culture, and creative economy planning and policy efforts at the neighborhood, city, and regional levels, and 3) the social, spatial and political ramifications of these efforts and of the creative economy broadly.

## **CIRP5327 – INTRODUCTION TO GREEN CITIES AND TRANSPORTATION**

**3** Lecture Hours · **0** Lab Hours

Introduction to concepts of green cities and transportation, environmental and transportation challenges, and school of thoughts on causes of environmental and transportation problems, with emphasis on planning practices and policies in relation to environmental and transportation issues and roles of planners in shaping urban landscape and infrastructure.

## **CIRP5328 – PUBLIC BUDGETING**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the principles and practices used by federal, state, and local governments to acquire and spend revenues within the context of American democracy, capitalism, federalism, and economics. The primary objective of this course is to provide students with the practical skills and theoretical knowledge to enable them to be effective participants in the budgeting process and critical consumers and producers of research relevant to public budgeting. Offered as CIRP 5328 and URPA 5326. Credit will be granted only once.

## **CIRP5329 – PUBLIC CAPITAL BUDGETING**

**3** Lecture Hours · **0** Lab Hours

Examines governmental capital budgeting processes with a focus on understanding the significance of capital improvement planning, public facility investment, and project evaluation to sound infrastructure financing and regional economic growth. Governments purchase or construct long-lasting physical assets or facilities financed mostly through borrowing. This course aims to understand the rationale for public capital budgeting and debt instruments used to finance capital investment in the political context of public budgeting in America. Offered as URPA 5332 and CIRP 5329; credit will be granted only once.

## **CIRP5330 – TECHNIQUES OF PLANNING ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

Introduction to research methods, both quantitative and qualitative and mixed methods. Relating planning problem identification and definition with appropriate method of data gathering and analysis. Analysis and interpretation of qualitative and quantitative data including interview and small group techniques, and basic statistical analysis. Communication of analysis results in graphic, written, and oral forms.

## **CIRP5331 – GIS WORKSHOP**

**3** Lecture Hours · **0** Lab Hours



Skills, practical experience, problem-solving methods and techniques in geographic information systems. Capstone course for GIS Certificate Program; substitutes for one Project Planning Course.

### **CIRP5332 – PROJECT STUDIO**

**0** Lecture Hours · **3** Lab Hours

Studio course working on applied city and regional planning projects within the Dallas-Fort Worth area or elsewhere. Provides students with practical experience in collaborative teamwork and the application of skills, methods, and techniques in city and regional planning, including citizen participation, problem analysis, mapping, design, presentation, working with clients, and applied planning process. Should be taken in the second half of the student's program of study, with exceptions for those with applied planning experience. May be repeated as topic changes.

### **CIRP5340 – GIS AND SUITABILITY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Acquaints students with theoretical and practical aspects of suitability analysis process or activity allocation on land use/environmental policies. Uses Geographic Information System (GIS) and computer models for overlaying map analysis, buffering, market demand and activity locations, etc. to incorporate environmental and ecological factors into the determination of land development potential including soils, slope, drainage, vegetation, and related factors.

### **CIRP5341 – ENVIRONMENTAL REGULATIONS: LAWS AND PLANNING**

**3** Lecture Hours · **0** Lab Hours

Federal, state, and local environmental regulations which have effect on the practice of city and regional planning. Specific articles, laws, and directives contrasted and compared to local city design and development controls. Subjects include CERCLA, RCRA, SARA, TSCA, OSH Act, among others.

### **CIRP5342 – ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the physical environmental dimensions of urbanization including such factors as pollution, waste disposal, and land use; stresses the role of economic, social, and political institutions as these affect environmental quality of the city. Offered as CIRP 5342 and URPA 5317; credit will be granted only once.

### **CIRP5343 – FOUNDATIONS OF ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Explores how environmental controversy is rooted in conflict between a number of schools of environmental policy thought with divergent perspectives on issues such as how to define progress, how to balance the needs of economy and ecosystem, how to cope with environmental complexity, and what role science should play in environment affairs. Also offered as URPA 5365; credit will be granted only once.

### **CIRP5344 – HUMAN SERVICES PLANNING**

**3** Lecture Hours · **0** Lab Hours

Social welfare institutions: private and public; needs assessment, resource allocation, procedures, city/state/federal/private policy review; highlights of current system demands and changes. Also offered as URPA 5316.

### **CIRP5345 – PLANNING AND REAL ESTATE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

The goals, strategies, methods, and achievements of major participants in the urban land and building markets are examined. Land owners, speculators, real estate brokers, developers, bankers, lawyers, non-profit builders, and government agencies are studied, as well as such business tools as: market and feasibility analysis, appraisal techniques, proforma analysis, and others.

### **CIRP5346 – QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours

The study of qualitative research and analysis methods. Offered as CIRP 5346 and URPA 5344; credit will be given only once.

### **CIRP5347 – URBAN PROBLEMS**

**3** Lecture Hours · **0** Lab Hours

Specific urban problems examined in depth, traced to their historical origins to see how they or similar problems have been dealt with in other times and places. Students will then propose possible solutions to the problems in their contemporary form. Offered as CIRP 5347 and URPA 5319.

### **CIRP5350 – ENVIRONMENTAL PLANNING**

**3** Lecture Hours · **0** Lab Hours

Overview of environmental planning issues and problems, including basic ecological principles; development and effects of the chemical industry; policies on international issues; environmental justice and ethics; environmental economics, including externalities and public goods; sustainable development; overviews of planning for air quality, water quality, solid waste, pollution prevention, habitat conservation, etc.; and plan implementation, including enforcement, regulation and funding.

### **CIRP5351 – TECHNIQUES OF ENVIRONMENTAL ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Analysis of impact assessment documents from a variety of projects; study of federal laws and regulations governing the process; state impact assessment laws and regulations; and procedures used in other nations. Students will prepare an environmental assessment for a real-world project. Overviews of environmental site assessment, MIS documents, and environmental auditing will also be given.

### **CIRP5352 – ENVIRONMENT ASSESSMENT POLICY & PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Review and analysis of the development of the environmental assessment process with focus on expectations of how environmental assessment will be transformed in the era of climate change. Students evaluate the effects of new laws and regulations and the accelerated growth of environmental policy development at all levels of government, especially among urban areas. The course includes review of selected environmental assessment documents and project case studies.

### **CIRP5353 – ENVIRONMENTAL LAW**

**3** Lecture Hours · **0** Lab Hours

This seminar examines the role of environmental law within the political-institutional framework of the American system. Emphasis is on the legal-judicial aspects of environmental regulation. Analyzes the decision of U.S. courts as these affect and interpret environmental laws and regulations for their legality and constitutionality.

### **CIRP5354 – HOUSING PLANNING, POLICY AND FINANCE**

**3** Lecture Hours · **0** Lab Hours

Evaluation of the effect of state, local, and federal housing policy on the urban arena. Topics will be selected from federal subsidy programs, tax subsidies, operations of financial intermediaries, and related areas.

### **CIRP5356 – INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Introduction to GIS and the application of computer graphics systems in the storage, processing, and retrieval of geographic urban and regional information; case examples and related projects and issues of system management.

### **CIRP5357 – INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours



Applications of GIS to typical urban and regional geographic information problems and projects.

### **CIRP5358 – INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND PLANNING**

**3** Lecture Hours · **0** Lab Hours

Concepts, components, deployments, and implementations of ITS; methods for ITS evaluations; linkage between ITS and traditional transportation planning; and issues related to ITS planning and deployment.

### **CIRP5360 – COMPUTER METHODS FOR TRANSPORTATION PLANNING**

**3** Lecture Hours · **0** Lab Hours

Applications of computer software (for example, TransCad, Tranplan) in transportation planning modeling. Theories of residential location choice and travel behavior. Topics may include land-use and travel demand models, trip distribution models, mode choice models, and network equilibrium.

### **CIRP5361 – PLANNING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Intended to enhance readiness for professional work through exposure to planning practice in a one semester log internship (300 hrs in the spring or fall semester or 275 hrs in the summer). Integrates work experience and coursework through journaling and reflective practice. Requirements: (1) student secures an internship from a planning related employer and approval from the student's major professor prior to enrolling in the course; (2) the intern must provide performance evaluation by the job supervisor and the intern's evaluation of the internship experience. Enrollment open to students with no previous formal planning experience. Credit not available for previous internship or planning experience. P/F grade.

### **CIRP5362 – URBAN DIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Examines the growing spatial and social diversity of cities; how physical as well as socioeconomic urban structures have fostered race, class, and gender inequalities; how urban policies have addressed and can address these issues. Offered as CIRP 5362 and URPA 5362.

### **CIRP5363 – LEADERSHIP AND COMMUNICATION SKILLS IN THE PLANNING PROCESS**

**3** Lecture Hours · **0** Lab Hours

Governance and participation, comprehensive planning and the community planning process, participatory planning, and practical communication skills for planners and administrators: leadership and public meetings, participative decision making, interpersonal communications and conflict management, effective writing and presentations.

### **CIRP5364 – ECONOMIC BASE AND INDUSTRIAL DEVELOPMENT POLICY**

**3** Lecture Hours · **0** Lab Hours

Theories and methods of local and regional economic base analyses; techniques for inventorying strengths, weaknesses, opportunities and threats of local capital, labor and land resources; alternative policy responses to industrial development issues arising from economic base analysis.

### **CIRP5380 – RESEARCH QUESTIONS IN PLANNING**

**3** Lecture Hours · **0** Lab Hours

Application of research issues, writing, and communication skills in planning. Designed to assist students in preparing their research for master's thesis or professional report.

### **CIRP5391 – CONFERENCE COURSE**

**3** Lecture Hours · **0** Lab Hours

Special subjects and issues as arranged by individual students and faculty members. May be repeated for credit.

### **CIRP5395 – SPECIAL TOPICS IN PLANNING**

3 Lecture Hours · 0 Lab Hours

Selected topics in City and Regional Planning. May be repeated for credit.

### **CIRP5397 – PROFESSIONAL REPORT**

3 Lecture Hours · 0 Lab Hours

Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in CIRP 5193.

### **CIRP5398 – PLANNING THESIS**

3 Lecture Hours · 0 Lab Hours

Graded F/R.

### **CIRP5698 – PLANNING THESIS**

6 Lecture Hours · 0 Lab Hours

Graded F/R.

### **CIRP5998 – PLANNING THESIS**

9 Lecture Hours · 0 Lab Hours

Graded P/F/R.

### **CIRP6301 – THEORETICAL FOUNDATIONS AND PH.D. WORKSHOP**

3 Lecture Hours · 0 Lab Hours

Explores the development and function of theoretical models and frameworks. Examines the major theories from the social sciences designed for framing issues in urban planning, administration, and public policy. Designed to assist doctoral students in preparing their research for dissertation. Opportunities to present work in progress, share ideas, and interact with faculty. Prerequisite: CIRP 5317/URPA 5342, and CIRP 5346/URPA 5344. Offered as CIRP 6301 and URPA 6301; credit will be granted only once.

### **CIRP6305 – SEMINAR IN URBAN PLANNING PROCESSES**

3 Lecture Hours · 0 Lab Hours

Final course in urban planning field. Focus on the various political, economic, and social institutions and theoretical approaches in the planning process, and application of these multidisciplinary perspectives in the analysis of specific planning issues.

### **CIRP6346 – ADVANCED DATA ANALYSIS**

3 Lecture Hours · 0 Lab Hours

An introduction to selected advanced techniques related to planning analysis. Subjects include advanced applied regression analysis, multivariate logit analysis, and multinomial logistic regression. Applications of projection techniques, land use and transportation models, and methods of regional analysis. Offered as CIRP 6346 and URPA 6346. Credit will be given only once.

## **UPPP Courses**

### **UPPP6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

Graded R/F only.

### **UPPP6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded R/F/P/W only.

### **UPPP6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded P/F/R.

### **UPPP7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)

## File Not Found (404 Error)

The page you requested:

</about/catalog/current/schools/supa/interdisciplinary/>

does not exist on this web site.

Please refer to our [site map](#) below for help in finding the information you need.

### Graduate Studies – Home

#### ■ [About Us](#)

- [Welcome](#)
- [Academics & Research](#)
- [Cultural Diversity](#)
  - [McNair Scholars](#)
- [Grad Stories](#)
  - [Next Generation University](#)
  - [Cara Wallace](#)
  - [A. R. Nazmus Sakib](#)
  - [Tina Castillo](#)
- [Graduate Catalog](#)
- [Contact Us](#)
  - [UT Arlington in Social Media](#)

#### ■ [Prospective Students](#)

- [Apply](#)
  - [Before You Apply](#)
  - [How To Apply](#)
  - [After You Apply](#)
  - [Former Student Readmission](#)
  - [Tuition & Financial Assistance](#)
- [Programs](#)
  - [Graduate Degrees & Certificates](#)
    - [Gainful Employment Disclosure](#)
  - [Distance Education](#)
  - [Science & Math Teachers](#)
  - [Fort Worth Center](#)
- [Visit Campus](#)
  - [Walk-In Sessions](#)

- [Workshops](#)
- [GRE/GMAT Services](#)
- [Graduate Forums](#)
- [Plan A Visit](#)
- [We're Coming to You](#)
- **Students**
  - [Services & Resources](#)
    - [Academics & Advising](#)
    - [Writing](#)
    - [Teaching & Research](#)
    - [Responsible Conduct of Research](#)
    - [Graduation Information](#)
  - [New Graduate Student Orientation](#)
  - [Petition to the Graduate Faculty](#)
  - [Tuition & Expenses](#)
  - [Financing Your Education](#)
    - [Graduate Fellowships](#)
      - [UT Arlington Funded Fellowships](#)
      - [Externally Funded Fellowships](#)
    - [Sponsored Students](#)
    - [Need-Based Aid](#)
      - [Grants](#)
      - [Student Loans](#)
      - [Work Study Program](#)
      - [Tuition Assistance for Mexican Students](#)
  - [Forms](#)
    - [Master's Forms](#)
    - [Doctoral Forms](#)
    - [Thesis & Dissertation Forms](#)
- **Faculty & Staff**
  - [Graduate Advisors](#)
    - [Meeting Handouts & Information](#)
  - [Graduate Assembly](#)
    - [Meeting Minutes](#)
  - [Graduate Recruiting Advisory Board](#)
  - [Graduate Studies Committee](#)
  - [Forms](#)
  - [Policies & Procedures](#)
  - [Resources](#)
  - [Recruiting & Promotion](#)
- **Alumni & Friends**

- [DEGREES Newsletter](#)
- **Special Programs**
  - [Admissions Forms](#)
  - [ATGS](#)
  - [AUGMENTS](#)
  - [DS-PRO](#)
  - [EDGE](#)
  - [EGFI](#)
  - [Grad Fest](#)
  - [I Engage](#)
    - [IM Program](#)
  - [LSAMP](#)
  - [ON-TRAC](#)
  - [Request Information](#)
  - [TAGSS](#)
  - [Virtual Tour](#)
- **Resources**
  - [“Office” Resources](#)
  - [PDF Resources](#)
  - [Video Resources](#)
  - [ZIP Resources](#)
- **Online Tools (Secure Login Required)**

The University of Texas at Arlington [Graduate Admissions](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.3372](#) | Fax [817.272.1494](#)

[Blog](#) | [Facebook](#) | [Twitter](#)

© 2017 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
    - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Public Administration

School of Urban and Public Affairs

Web [www.uta.edu/supa/graduate/mpa/index.php](http://www.uta.edu/supa/graduate/mpa/index.php)  
Phone 817.272.2338  
Fax 817.272.5008

551 University Hall

---

### Degrees / Certificates

#### Master's Degrees

Accelerated Online Master of Public Administration  
Public Administration, M.P.A. On Campus.

#### Certificates

Law & Public Policy Certificate  
Public Budgeting and Financial Management Certificate  
Urban Non-Profit Management Certificate

---

### Graduate Faculty

#### Graduate Advisor

[Karolyn Field](#)

#### Program Director

[David Coursey](#)

#### Professor

[Richard Cole](#)

#### Associate Professor

[Rod Hissong](#)  
[Maria Martinez-Cosio](#)  
[Alejandro Rodriguez](#)

#### Assistant Professor

[Karabi Bezboruah](#)  
[Colleen Casey](#)  
[Darla Hamann](#)

---

### Graduate Advisors

#### [Karolyn Field](#)

*Public Administration, M.P.A. On Campus.*

#### [Anthony Valdez](#)

*Public Administration, M.P.A. On Campus.*

## Department Information

### Courses

# Department Information

#### General

- [Mission](#)
- [Goals and Objectives](#)
- [Factors considered for admission to the MPA program](#)
- [Types of Admission](#)
- [Scholarship/Fellowship Criteria](#)
- [SUPA Inadequate Academic Progress Point System](#)
- [On Campus Degree Requirements and Courses](#)
- [Online Degree Requirements and Courses](#)
- [Dual Degree Programs](#)

#### Certificate in Urban Nonprofit Management

#### Graduate Certificate in Public Budgeting and Financial Management

- [Core Courses \(Required\)](#)
- [Elective Courses](#)

#### Public and Urban Administration Ph.D. Program (PUAD)

- [Application Requirements and Deadlines](#)
- [Curriculum and Degree Requirements](#)

### General

Public Administration is concerned with the formulation, analysis, negotiation, and implementation of democratically responsible collective action. With an interdisciplinary focus, this program gives special emphasis to the urban community and the special challenges of public managers who serve in urban areas. The curriculum is designed to develop leadership capacity, understanding of the political, social, and economic characteristics of today's urban environment and the ability to apply current theories of management and analysis to difficult management issues. The program is meant as preparation for those entering management careers in government for the first time or as career development for those already employed who are seeking upward mobility in public management.

The MPA degree at the School of Urban and Public Affairs is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA), and the curriculum conforms to NASPAA standards.

Those seeking admission to the MPA program can choose between two program options: 1) courses taught on campus primarily during the evening hours; and 2) courses taught online. Applicants who choose the on-campus option may plan their courses to include the requirements of certificate programs such as Urban Nonprofit Management or Public Budgeting and Financial Management. A description of the various certificate offerings can be found in the Urban and Public Affairs section of the catalogue.

A hallmark of the MPA program is its distinguished faculty that combines extensive academic and



field experience in public administration with a wide range of related backgrounds. Augmenting the permanent faculty are several adjunct professors with impressive credentials in the public management field such as Bob Hart, City Manager of Kennedale, Texas; Richard Greene, Regional Director of EPA and former Mayor of Arlington, Texas.

## Mission

The mission of the Master's of Public Administration program is to strengthen public decision making and the delivery of public services in a globalized and diverse society by educating students to lead and manage organizations at all levels of government and nonprofit institutions ethically, democratically, and effectively.

## Goals and Objectives

- Goal 1: To educate students in the areas of public policy, administrative practices, research methods, and those analytical skills necessary for successful professional careers in the public and nonprofit sectors.

Objective 1: Demonstrate knowledge, skills, and competencies taught in the degree's core and respective emphasis area courses including proficiency in:

1. researching, analyzing, and writing reports on topics related to public sector work
2. effective written and oral communication skills
3. critical thinking skills in analyzing and solving problems
4. teambuilding skills and effective teamwork in managing projects

- Goal 2: To provide opportunities for students to apply current theories of public administration, particularly decision making, helping them to master their work responsibilities as administrators and preparing them for exemplary leadership and management positions in an increasingly complex urban environment.

Objective 2: Demonstrate knowledge, skills, and competencies characteristic of public leaders including proficiency in:

1. understanding the economic, legal, social, and political context of public administration and the policymaking process
2. incorporating public values into decisions
3. incorporating an ethical commitment in carrying out the public trust
4. interacting productively with a diverse and changing workforce and citizenry

- Goal 3: To instruct students in the effective use of information technology resources and internet collaborative tools enabling them to apply those skills in order to strengthen their public service and public decision-making capabilities.

Objective 3: Demonstrate adequate skills in the use of social networking tools and other Internet-based technology to manage projects and organizational resources including proficiency in:

1. using the Internet to conduct information searches and using appropriate computer applications for data collection, presentation, and analysis
2. using Internet-based applications to facilitate course related discussion and project management

- Goal 4: To encourage and support research and scholarship by both faculty and students, as well as the presentation of that work at appropriate national and international conferences and in the publication of that research in refereed scholarly journals and prominent professional journals.

Objective 4: Demonstrate research skills and professional service engagement including proficiency in:

1. publishing scholarly and applied research relevant to public and nonprofit organizations
2. engaging in professional and community service leading to the advancement of

public values, the profession, and the socialization of the next generation of public leaders

## Factors considered for admission to the MPA program

Factors in admission decisions are the same for the on campus and online programs.

The MPA program takes a holistic approach to the application review process. Each applicant's file is reviewed individually with equal consideration given to the quantitative and qualitative aspects of the student's records. A complete application includes:

- Graduate Record Exam (GRE) score: Writing (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Undergraduate Grade Point Average (GPA): The undergraduate GPA based on the last 60 hours of course work as calculated by the Graduate School from the official transcript.
- Graduate Record Exam (GRE) scores: Verbal and Quantitative (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Letters of Recommendation attesting to the applicant's potential to do Master's-level work and complete the program. Letters for Master's programs should be from professors or supervisors at work.
- Essay by applicant approximately one double-spaced page in length (approximately 250 words). The Essay is considered both for its content and quality of writing. The Essay should address the following questions: 1. Why do you want to earn a Master's degree in the program for which you are applying? 2. What relevant background and experience do you bring to the program? The essay can also include other concerns you'd like to bring to the attention of the Graduate Advisor or Master's Admissions Committee.
- Non-native English speakers only: TOEFL or IELTS scores (Exceptions: An applicant holding either a Bachelor's or a Master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, or IELTS score for admission purposes.)

## Types of Admission

### 1. Unconditional Admission:

Applicants who meet all the following requirements will be considered for unconditional admission:

- a. Minimum Writing GRE score of 4.0
- b. Minimum Undergraduate GPA of 3.0
- c. A preferred minimum Verbal GRE score of 450 (Revised GRE Test: 150), and minimum Quantitative GRE of 450 (Revised GRE Test: 141), and a minimum combined Verbal and Quantitative score of 1,000 (Revised GRE Test Combined: 291)
- d. Outstanding letters of recommendation
- e. Strong, well-written personal essay
- f. Non-native English speakers only: TOEFL scores of at least 550 (paper-based), 213 (computer-based), or 79 (iBT) with sectional scores that meet or exceed 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or, IELTS score of at least 6.5.

### 2. Probationary Admission:

Applicants who do not meet all requirements for Unconditional admission will be considered for Probationary admission on the basis of the strength of all the listed admission factors. Test scores will not constitute the sole or primary basis for ending consideration of an applicant. Under Probationary admission, special course requirements or other conditions may be imposed by the SUPA Master's Admissions Committee. Applicants who meet all the standards for Unconditional admission except for deficiency in Writing GRE score will be considered for Probationary Admission conditional on

completing an approved Writing course in their first semester.

**3. Other types of admission decisions pertaining to Master's applicants:**

- a. **Deferred:** Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admissibility can be determined, may be deferred until records are complete.
- b. **Provisional:** Applicants who are unable to supply all required documentation prior to the admission deadline but who otherwise appear to meet admission requirements may be granted Provisional admission pending submission of complete and satisfactory credentials before the end of the semester in which they have registered in a Provisional status.
- c. **Denied:** Applicants who fail to meet more than one of the admission requirements and for whom the SUPA Master's Admission Committee finds there is insufficient basis to justify any other kind of admission will be Denied admission. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission

### Scholarship/Fellowship Criteria

- Graduate students with a GPA of 3.0 or better who are enrolled in six hours or more are eligible to apply for competitive scholarships and fellowships.
- Scholarships and fellowships for Master's and Doctoral students will be competitively awarded based on consideration of the all admission criteria assessed by their admitting programs.

### SUPA Inadequate Academic Progress Point System

A student may be subject to dismissal from the program if they accumulate 4 deficiency points during their Master's degree or their Ph.D. Students who complete a Master's degree at SUPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student's record by repeating a course or additional coursework.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

### On Campus Degree Requirements and Courses

The on campus program consists of 39 or 42 total hours, which includes 10 required core courses and 9 hours in a selected emphasis area (2 required emphasis area courses and 1 elective). URPA 5360 is a 3 credit hour internship course; however this can be waived with at least 1 year of professional experience working in the public sector. Details on internship waiver requests are available on the MPA program website.

Upon successfully being admitted into the MPA program, students will choose an emphasis area and degree plan. Most all classes are offered as one session per week on Monday through Thursday during evening times (6:00-8:50pm or 7-9:50pm).

#### I. Core Courses (30 hours)

- URPA 5302 Foundations of Urban Research and Analysis
- URPA 5309 Intergovernmental Relations
- URPA 5320 Public Organization Theory
- URPA 5326 Public Budgeting
- URPA 5329 Financial Management in the Public and Non-Profit Sectors
- URPA 5345 Evaluation Research
- URPA 5350 Public Administration
- URPA 5351 Public Human Resources
- URPA 5358 Ethics in the Public Service

URPA 5399 Public Administration Capstone

**II. Emphasis Areas (9 hours)**

Students select an emphasis area and take a total of three courses: two required courses plus one elective from the respective list or any other course with the approval of the MPA advisor.

**Emphasis Area 1: International Administration and Development**

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate comprehension of the multidisciplinary concepts and theories of comparative administration, urbanism and politics with emphasis on globalization, urban and regional development, public bureaucracy, traditional and economic elites, modernization, and analyze the role, policies and organization of regional and multinational organizations.
2. Prepare and present a major comparative, scholarly study on a prominent policy or topical issue.

**Required courses:**

CIRP 5307 Urbanization in the Developing World  
URPA 5327 Comparative Administration and Development

**Elective courses (select one):**

PAD 5361 Political Economy of Borders  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5391 Comparative Public Policy-Study Abroad  
URPA 5392 Urbanization and Development-Study Abroad  
URPA 6349 Decision Making and Public Policy Analysis

**Emphasis Area 2: Public Budgeting and Financial Management**

Objectives-upon completion of this emphasis track, students should be able to:

1. Review, recommend, and interpret operating and capital budget requests taking political, economic, and decision-making processes into account; and
2. Assist the budget officer and other higher-level public officials in performing comprehensive financial analyses and developing financial and budgetary recommendations.

**Required courses:**

URPA 5332 Public Capital Budgeting and Planning  
URPA 5348 Cost-Benefit Analysis

**Elective courses (select one):**

URPA 5312 Economic Policy  
URPA 5321 Urban Management  
URPA 5324 Urban Public Finance  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management  
URPA 5333 Governmental and Nonprofit Accounting  
URPA 6349 Decision Making and Public Policy Analysis (**NEW**)

**Emphasis Area 3: Urban Management**

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate proficiency in the use of applied analytic tools such as program evaluation,

policy analysis, cost-benefit analysis, and other management decision-making tools to aid the public manager make more informed decisions;

2. Assist public managers and other higher-level public officials to understand, analyze, and recommend appropriate solutions to complex public policy issues.

**Required courses:**

URPA 5321 Urban Management  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management

**Elective courses (select one):**

URPA 5304 Urban Politics  
URPA 5312 Economic Policy  
URPA 5323 Public Organizational Change  
URPA 5324 Urban Public Finance  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5348 Cost-Benefit Analysis  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5367 Strategic Public and Nonprofit Human Resources Management  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 6349 Decision Making and Public Policy Analysis

**Emphasis Area 4: Urban Nonprofit Agency Management**

Objectives-upon completion of this emphasis track, students should be able to:

1. Understand the different management areas and techniques within the nonprofit organization, including institutional management, leadership, fund-raising, financial administration, human resources coordination, and planning and performance measurements.
2. Understand the role of nonprofits as community institutions with an outward focus, including the political, economic, and inter-organizational environment, as well as marketing, legal, and government policy issues.

**Required courses:**

URPA 5354 Management of Nonprofit Organizations  
URPA 5355 Nonprofit Institutions

**Elective courses (select one):**

URPA 5313 Community Development  
URPA 5318 Social Welfare Policy  
URPA 5321 Urban Management  
URPA 5330 Community and Neighborhood Organization  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA (CIRP 5312) Strategic Planning and Performance Management  
URPA 5348 Cost-Benefit Analysis  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5367 Strategic Public and Nonprofit Human Resources Management  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 6349 Decision Making and Public Policy Analysis

**Emphasis Area 5: Strategic Human Resources Management**

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate an understanding of public human resource policies, programs, procedures, and legal issues relevant to the field; and

2. Demonstrate knowledge of techniques employed in designing performance appraisals, recruiting and selecting employees, and developing rewards systems.

**Required courses:**

URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5367 Strategic Public and Nonprofit Human Resources Management

**Elective courses: (select one)**

URPA 5321 Urban Management  
URPA 5323 Public Organizational Change  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 6349 Decision Making and Public Policy Analysis

**Emphasis Area 6: Economic Development and Planning**

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate a general comprehension of the politics, organization, policy issues and legal and financial dimensions of local economic development; and
2. Demonstrate knowledge of techniques employed in location and impact analysis, strategic planning, revenue generation, marketing, cluster development, site planning, and business recruitment, development and retention.

**Required courses:**

URPA 5334 Managing Economic Development  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management

**Elective courses (select one):**

URPA 5306 The Urban Economy  
URPA 5312 Economic Policy  
URPA 5321 Urban Management  
CIRP 5322 Economic Development Planning and Policy  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5348 Cost-Benefit Analysis  
URPA 6349 Decision Making and Public Policy Analysis

**III. Internship (3 hours)**

URPA 5360 Urban Management/Planning Internship for students with less than one year of appropriate work experience.

**Online Degree Requirements and Courses**

The online program consists of 39 required core hours plus a 3 hour internship. Internships may be waived under the same conditions as the on campus program. Students may choose between URPA 5332 and 5352 but all other courses are required.

The program is designed for students to take two courses a term (Fall, Spring, Summer) in succession (one course in first half of term, another in second half of term) though it is possible to take additional courses. The curriculum is offered in a lockstep cohort format. Unlike the on campus program, there are no emphasis areas.

**I. Core Course (39 hours)**

URPA 5302 Foundations of Urban Research and Analysis



URPA 5309 Intergovernmental Relations  
URPA 5320 Public Organization Theory  
URPA 5326 Public Budgeting  
URPA 5329 Financial Management in the Public and Nonprofit Sectors  
URPA 5332 Public Capital Budgeting  
URPA 5345 Evaluation Research  
URPA 5350 Public Administration  
URPA 5351 Public Human Resources  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5355 Nonprofit Institutions  
URPA 5358 Ethics in the Public Service  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 5399 Public Administration Capstone

## II. Internship (3 hours)

URPA 5360 Urban Management/Planning Internship for students with less than one year of appropriate work experience.

## Dual Degree Programs

Students in public administration may participate in one of five dual degree programs whereby they can earn a Master of Public Administration and 1) Master of Arts in Urban Affairs 2) a Master of City and Regional Planning, 3) a Master of Science in Social Work, 4) a Master of Science in Nursing, 5) a Master of Arts in Criminal Justice, or 6) a Master's of Sociology. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs. To participate in the dual degree program, students must make separate application to each program and must submit a separate Program of Work for each degree. Those interested in the dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement of Dual Degree Programs in the general information section of this catalog.

## Certificate in Urban Nonprofit Management

The Urban Nonprofit Management Certificate provides in-depth management training to nonprofit managers, staff, board members and volunteers to strengthen their management skills, administrative systems, and service delivery programs.

Students from any department or discipline may elect to complete the certificate program. Upon completion, students will be prepared to assume key roles in any nonprofit institution.

The certificate requires completion of URPA 5354 (Management of Nonprofit Organizations) and URPA 5355 (Nonprofit Institutions) as well as three additional courses to be selected by the student with approval of the Urban Nonprofit Management certificate program advisor. Examples of courses that would be approved include: URPA 5303 The Metroplex; URPA 5329 Financial Management in the Public and Nonprofit Sector; URPA 5351 Personnel and Human Resources in the Public Sector; URPA 5392 Entrepreneurial Management; CIRP 5319 Agencies of Planning and Administration or CIRP 5312 Strategic Planning and Management; CIRP 5324 Community Development or CIRP 5306 Urban Development; SOCW 5307 Introduction to Human Services Administration; SOCW 5303 Foundations of Social Policy and Services; MARK 5311 Marketing; MARK 5345 Creative Problem Solving.

Students who are already enrolled in a graduate degree program at U.T. Arlington need only declare their intent to enroll by submitting the appropriate application form to Dr. Edith Barrett, the Urban Nonprofit Management Certificate Advisor. No prerequisite requirements are essential for these students.

Students who desire only to enroll in the Urban Nonprofit Management Certificate program but

NOT in a graduate degree program may apply for admission to UT Arlington as a special student or "non-degree seeking" student. An undergraduate degree and grade point average of 3.0 shall be required. A GRE (graduate record examination) score and letters of recommendation are not necessary for admission to the Urban Nonprofit Management Certificate program. Any student that later seeks a graduate degree in a UT Arlington college or school may apply nine hours of coursework toward that degree within six years of completion and award of the Urban Nonprofit Management Certificate and by petition to the Graduate School through her or his prospective academic department. The acceptance or waiver of the remaining six hours taken as part of the requirements for the award of the Urban Nonprofit Management Certificate is at the discretion of each department.

Graduate students in any degree program at UT Arlington may register for Urban Nonprofit Management courses using standard registration procedures. It should be noted that class slots in the two core courses would be reserved for all of those Urban Nonprofit Management Certificate program participants who are accepted. Urban Nonprofit Management program students who are enrolled in other academic schools or colleges must obtain written course approval from their respective graduate advisors.

Professionals who desire to enroll in any or both of the core courses for continuing education hours may do so as special students. If at a later date these students decide to apply for the Urban Nonprofit Management Certificate program, the hours already taken as continuing education will be applied (within six years of completion of the courses) to the certificate program requirements.

## **Graduate Certificate in Public Budgeting and Financial Management**

Sound fiscal management at all levels of government is essential for meeting the demands of an increasingly expensive and complex service-delivery need. The purpose of this graduate certificate is provide students interested in public sector affairs and local government officials (budgeters, planners, finance analysts, and elected officials) with the skills to enable them to effectively support local government financial decision-making. Participants should expect to attain a comprehensive understanding of public budgeting and financial management practices and theories including knowledge of the various government revenue sources, major expenditures, and borrowing mechanisms used to finance long-life capital assets.

Students wishing to enroll only in the Graduate Certificate in Public Budgeting and Financial Management (certificate) but NOT to a graduate degree program may apply for admission to UT Arlington as a non-degree seeking student. A Bachelor's degree with a GPA of 2.8 in the last 60 hours of undergraduate coursework is required for admission through the Graduate School. Students with GPAs lower than 2.8 may be recommended for admission by Alejandro Rodriguez, Ph.D., the Certificate Advisor, based on the following admission enhancing factors: (1) the applicant's work experience and level of responsibility; (2) undergraduate degree in economics, financial management, accounting, or other closely related field; and (3) two letters of recommendation.

Students already enrolled in a Master's degree program at UT Arlington may enroll by submitting the appropriate application form to the program manager and his or her academic graduate advisor. Students who have completed a Master's degree may apply for admission to UT Arlington as a non-degree seeking student. In either case, a minimum GPA of 3.0 in Master's degree work is required.

Participants must satisfactorily complete three required core courses and two elective courses from an approved list of elective courses, or by permission of the program advisor. Students shall be awarded the Graduate Certificate for Public Budgeting and Financial Management by the School of Urban and Public Affairs and the Graduate School upon satisfactory completion of the certificate requirements and a grade point average of 3.0.

### **Core Courses (Required)**



URPA 5326 Public Budgeting \*  
URPA 5332 Public Capital Budgeting\*  
URPA 5329 Financial Management in the Public and Nonprofit Sectors

### Elective Courses

Students must take two of the following:

URPA 5302 Fundamentals of Urban Research and Analysis  
URPA 5345 Evaluation Research  
URPA 5310 Urban Policy and the Law  
URPA 5312 Economic Policy  
URPA 5324 Urban Public Finance  
URPA 5306 The Urban Economy  
URPA 5333 Governmental and Nonprofit Accounting

Students who later seek graduate degrees at UT Arlington may apply 12 hours of certificate coursework within six years of completion and award of the certificate, with approval of the appropriate Graduate Studies Committee and the Dean of the Graduate School. Non-degree seeking students in the certificate program desiring to seek a degree must meet all admission requirements of the degree program.

### Public and Urban Administration Ph.D. Program (PUAD)

The PUAD Ph.D. has eight required core courses, three required research courses, and a minimum of 9 dissertation credit hours. The eight core courses address the social sciences and public administration literatures critical to the integrative approach of the program. The methods courses include an intermediate quantitative methods course, and a qualitative methods course. Students also enroll in URPA 6301 to guide them in preparing their dissertation proposal. Students select their supervising committee during their first year to help guide them through their comprehensive exams and begin working on their dissertation proposal.

A student can expect to complete the required courses in no more than two academic years. Upon completing the core courses, students sit for their written comprehensive examination. The comprehensive examination is an integrative exam that blends public policy issues with public administration.

Students who completed a Masters in Public Administration degree may be eligible to waive some coursework and are encouraged to meet with the PUAD advisor to review their degree plan.

### Application Requirements and Deadlines

Along with the Graduate School application requirements, a complete application includes:

1. Official transcripts from colleges and universities attended. Students that obtained their masters degree at UT Arlington are not required to submit separate copies of transcripts as their information will be available to the SUPA advisors online. Information about submitting transcripts is available in the Graduate Catalog; and
2. Official test score reports for the Graduate Record Exam (GRE) and, for international applicants, the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about submitting official test scores is available from the Graduate Catalog. The ETS code for UTA is 6013; and
3. Three Letters of Recommendation. Letters should attest to the applicant's ability to do doctoral-level work and successfully complete the dissertation. Letters must be from references who hold a Ph.D. degree; and
4. An essay from the applicant that discusses the student's research agenda, identifies the faculty with whom the student will work, and states the reasons for pursuing a doctoral degree. The essay should be approximately 250 words. The essay is considered both for its content and writing quality.

Official transcripts and test scores must be sent directly to the Graduate School by the institution and ETS respectively. Letters of recommendation and personal essay should be sent directly to: PUAD Admissions Committee, SUPA Box 19588 , Arlington TX 76019 . It is the applicant's responsibility to ensure all application materials are received by February 1. Incomplete applications or applications received after the deadline will be deferred.

SUPA admits doctoral students for the Ph.D. in Urban and Public Administration for fall semester only. There are no spring and summer admissions for this degree.

Applicants that wish to be considered for graduate teaching assistant positions or other financial assistance, must submit their applications by their first week in January. Only complete applications (including GRE scores and letters) will be considered for financial assistance. Students must also complete a separate financial aid applications available on the SUPA website.

### **Admission Criteria**

Applicants may be admitted unconditionally with a graduate GPA of 3.6, a Verbal GRE score of at least 153 (500 if taken before August 1, 2011 and a Quantitative GRE score of at least 144 (500 if taken before August 1, 2011). International applicants are required to have a score of 213 or higher on the TOEFL (550 or higher on the written TOEFL; 79 or higher on TOEFL iBT). Strength of letters of recommendation and quality of personal statement and Master's degree field of study are also considered.

or

Applicants may be unconditionally admitted with a GPA above 3.7 if they earn scores of at least a 153 on the Verbal subtest (500 if taken before August 1, 2011) and 140 on the Quantitative subtest (400 if taken before August 1, 2011) or earn at least 144 (500 prior to August 1, 2011) on the Quantitative and 146 (400 prior to August 1, 2011) on the Verbal subtests.

Applicants not admitted unconditionally may be considered for admission on probation based on factors mentioned above as well as multilingual proficiency, first generation graduate student and applicant's community service experience. The doctoral admissions committee will set the probationary conditions.

The admissions committee may defer the admission decision when a component of the application is incomplete. It may also admit a student provisionally when an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

### **SUPA Inadequate Academic Progress Point System**

A student may be subject to dismissal from the program if they accumulate 4 deficiency points during their Master's degree or their Ph.D. Students who complete a Master's degree at SUPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student's record by repeating a course or additional coursework.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

If a Ph.D. student does not complete dissertation proposal within 2 years of passing comprehensive exam, they will accrue 2 deficiency points.

If a Ph.D. student does not complete all requirements for the Doctoral degree within five years after the student unconditionally passes the comprehensive examination, they will accrue 1 deficiency point per year beyond the five year mark.

### **Curriculum and Degree Requirements**

#### **Required Core Courses (24 hours):**

URPA 5304 Urban Politics or URPA 5309 Intergovernmental Relations  
URPA 5305 Theories of Urban Societies  
URPA 5306 The Urban Economy  
URPA 5311 Social Policy Formation  
URPA 6320 Advanced Organization Theory  
URPA 6315 Public Administration Theory  
URPA 6326 Public Budgeting and Finance  
URPA 6349 Decision Making and Policy

**Required Research Courses (9 hours):**

URPA 5342 Strategies in Urban Research/Intermediate Data Analysis  
CIRP 5346 Qualitative Research Methods.  
URPA 6301 Theoretical Foundations in Urban Affairs

**Comprehensive Exam and Dissertation**

Upon successful completion of the written comprehensive exam students form a three-member faculty committee and prepare their dissertation proposal. Given the research topic and preparedness of the student, the faculty committee may recommend that the student take additional courses that contribute to the student's dissertation. The student will defend a dissertation proposal before her/his committee.

Successful completion of the dissertation proposal advances the student to the status of candidacy (ABD). The student continues to work closely with her/his dissertation committee to the completion of the dissertation. SUPA holds graduation ceremonies in Fall and Spring and doctoral students can receive their hood at either event.

**Dissertation Proposal**

Upon successful completion of the written comprehensive examination, students will work in preparation of their dissertation proposal. This preparation may include independent study or structured courses and is guided by the student's Dissertation Committee. In the semester beginning the dissertation proposal, students are required to take URPA 6301 Theoretical Foundations and Ph.D. Workshop, which provides theoretical background and techniques to prepare the student for completing the dissertation proposal. Students must also work closely with their dissertation supervisor and committee to develop their dissertation proposal. A formal oral proposal defense must be held, and the proposal must be formally approved by the dissertation committee before the student may continue to complete the dissertation. Guidelines for the dissertation proposal are available in the Ph.D. Student Handbook.

**Dissertation**

The dissertation represents the culmination of the student's academic efforts and so is expected to demonstrate original and independent research activity and be a significant contribution to knowledge.

Upon the successful defense of their dissertation proposal, the student is required to submit an application to the UT Arlington's Institutional Review Board if their research involves human subjects. Detailed information on the application process is available at: [UTA's Human Subjects Research](#)

Doctoral students must enroll in a minimum of 3 dissertation hours (PUAD 6399) every long semester (Fall & Spring). The student must accumulate a minimum of nine dissertation hours to graduate. Once the student's committee has reviewed the completed dissertation and agree that the student is ready to defend, the student enrolls in PUAD 7399 in the term designated as their completion term. Students may designate only one term as the completion term. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W or F and must enroll in a minimum of 6 hours of dissertation research (6699 or 6999) every term until graduation.

The Graduate School offers Dissertation Seminars each semester and encourages all Dissertation students to attend.

The dissertation defense is a public oral examination open to all members (faculty, students and invited guests) of the University community. Questioning of the candidate will be directed by the student's dissertation committee. All members of the student's committee must be present at the defense. Although the defense is concerned primarily with the dissertation research and its interpretation, the examining committee may explore the student's knowledge of areas relevant to the core of the dissertation problem.

The dissertation defense may result in a decision that the candidate has 1) passed unconditionally; 2) passed conditionally with remedial work specified by the committee; 3) failed, with permission to be re-examined after a specified period; or 4) failed and dismissed from the program. The dissertation must be approved unanimously by the student's dissertation supervising committee and by the Dean of Graduate Studies.

## URPA Courses

### URPA5300 – FOUNDATION OF URBAN THEORY

3 Lecture Hours · 0 Lab Hours

Social theories that explain the life cycle of urban communities as they develop, expand, and are sustained or decay are presented and contrasted. Special consideration is given to role of social policy. Topics such as poverty, race, neighborhoods, and environment are addressed.

### URPA5301 – FOUNDATIONS OF URBAN POLITICS AND ECONOMICS

3 Lecture Hours · 0 Lab Hours

Examines the major political and economic institutions and processes in urban communities and their effect on urban policy.

### URPA5302 – FOUNDATIONS OF URBAN RESEARCH AND ANALYSIS

3 Lecture Hours · 0 Lab Hours

An introduction to research methodologies, both quantitative and qualitative, and statistical techniques useful in the analysis of urban trends and administrative programs. Previously taught as SUPA 5302.

### URPA5303 – THE METROPLEX: SURVEY OF URBAN AFFAIRS, PLANNING, ADMINISTRATION:

3 Lecture Hours · 0 Lab Hours

The Metroplex provides an ideal laboratory for study with more than 100 cities and other governmental units, thousands of neighborhoods and business enterprises, major concentration of minorities and dozens of ethnic groups. An in-depth orientation on urban dynamics utilizing senior faculty members, governmental and community leaders, and current research reports and studies.

### URPA5304 – URBAN POLITICS

3 Lecture Hours · 0 Lab Hours

Examination of the city as a political system, including the impact of urbanization and fragmentation on policies; input dimensions, including voting patterns and interest group development; decision-making structures, especially types of community power structures and the impact of the reform movement on structural processes. Also offered as POLS 5305; credit will be granted only once.

### URPA5305 – THEORIES OF URBAN SOCIETY

3 Lecture Hours · 0 Lab Hours

Several theoretical perspectives of the community and community organization examined. Special emphasis given to theories from human ecology, organization and stratification, and social welfare.

### **URPA5306 – THE URBAN ECONOMY**

**3** Lecture Hours · **0** Lab Hours

Internal dynamics of the growth and development of the urban system and its relation to the national economy. National and urban economic policy, urban growth and land use, market imperfections, urban financial issues, and the environmental implications of urban growth studied through lecture, game simulation and policy debates.

### **URPA5307 – URBAN GEOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

Emphasizes real aspects associated with urban physical environments and social, behavioral and financial processes that shape these environments.

### **URPA5308 – URBAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

Extensive reading primarily in the history of the urbanization and metropolitanization of the people of the United States. Historical methods as exemplified in the works of leading historians and analyzed; examples of the scholarship of selected historians and treatises on selected cities, regions, and urban institutions studied.

### **URPA5309 – INTERGOVERNMENTAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of the implications of federalism, and the changing nature of intergovernmental relations on state and local management, administration, planning, and policy making.

### **URPA5310 – URBAN POLICY AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of federal government and selected state and local government policies and programs designed to influence the course of change and the future development of cities and urban areas. The role of "private" governments in affecting policy explored.

### **URPA5311 – SOCIAL POLICY FORMATION**

**3** Lecture Hours · **0** Lab Hours

Utilization of a sociological approach in the study of policy formation in such areas as aging, social planning, and community problem solving.

### **URPA5312 – ECONOMIC POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines structure of the U.S. economic system and its impact on welfare of consumers, workers, and industry; public policy efforts to provide for management of critical economic variables are evaluated for effectiveness and equity as they impact different interest groups.

### **URPA5313 – COMMUNITY DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on current problems of community development and neighborhood revitalization. Housing, community assets, the roles of community development corporations and social capital in cities, and community economic development will be analyzed. Federal, state, and local policies, with grassroots initiatives evaluated for effectiveness on promoting alternatives for community building and organizing. Also offered as CIRP 5324; credit will be granted only once.

### **URPA5314 – HEALTH POLICY**

**3** Lecture Hours · **0** Lab Hours

Current health policy and programs, examination of historical development, economic and legal aspects,

interest groups and health constituencies.

### **URPA5315 – URBAN EDUCATION POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines current education policy and programs, including public school districts, charter schools, and vouchers; economic and political aspects; role of adult education programs in improving human capital.

### **URPA5316 – HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Social welfare institutions: private and public; needs assessment, resource allocation, procedures, city/state/federal/private policy review; highlights of current system demands and changes. Offered as URPA 5316 and CIRP 5344; credit will be granted only once.

### **URPA5317 – ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the physical environmental dimensions of urbanization including such factors as pollution, waste disposal, and land use; stresses the role of economic, social, and political institutions as these affect environmental quality of the city. Offered as CIRP 5342 and URPA 5317; credit will be granted only once.

### **URPA5318 – SOCIAL WELFARE POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines recent welfare reform measures (federal, state, and local levels), the political issues behind them, and their influence on urban life. A central topic will be the impact of a changing society on social welfare policy needs, including analyses of labor force participation and family structure.

### **URPA5319 – URBAN PROBLEMS**

**3** Lecture Hours · **0** Lab Hours

Specific urban problems examined in depth, traced to their historical origins to see how they or similar problems have been dealt with in other times and places. Students will then propose possible solutions to the problems in their contemporary form. Offered as CIRP 5347 and URPA 5319.

### **URPA5320 – PUBLIC ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Historical evolution of administrative theory including classical, sociological and social-psychological dimensions; decision-making theory; implications of public interest theory for public management; basic concepts of organization development and impact on public administration paradigms; new public administration; and future of public urban organization. Also offered as CRCJ 5309 and POLS 5303; credit will be granted only once.

### **URPA5321 – URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses through lectures, readings, and exercises on major administrative process: personnel and policy development and analysis; management styles and key contemporary management problems explored through presentations by prominent local practitioners.

### **URPA5322 – POLITICS, POLICY AND PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Development of theory of bureaucracy; bureaucracy as social issue; ethics and morality in public bureaucracy; mobilization of special interest support; power differentials in urban agencies; policy process in bureaucracy; new bureaucratic structures and processes for urban policy making.

### **URPA5323 – PUBLIC ORGANIZATIONAL CHANGE**



**3 Lecture Hours · 0 Lab Hours**

Current theories and concepts of public organizational change with particular emphasis on organization development and action research; theoretical roots of contemporary change literature traced through readings and discussion of classical organization theory, public administration including New Public Administration decision making, public interest, phenomenology, learning theory and general systems. Prerequisite: basic organizational theory course or permission of instructor.

### **URPA5324 – URBAN PUBLIC FINANCE**

**3 Lecture Hours · 0 Lab Hours**

Tax, revenue, and fiscal problems of cities and local governments in metropolitan areas; problems of matching costs and benefits in providing public services among different local governments; increasingly complex dimensions of intergovernmental fiscal relations and public budgeting systems. Offered as URPA 5324 and CIRP 5329; credit will be granted only once

### **URPA5325 – ADMINISTRATIVE LAW**

**3 Lecture Hours · 0 Lab Hours**

Examines scope and role of administrative regulation of and by governmental agencies; explores constitutional principles which limit administrative power and administrative law which governs classical areas of conflict between administrative agencies and their constituencies; rule-making, judicial review and informal regulatory processes of importance to public officials.

### **URPA5326 – PUBLIC BUDGETING**

**3 Lecture Hours · 0 Lab Hours**

This course introduces students to the principles and practices used by federal, state, and local governments to acquire and spend revenues within the context of American democracy, capitalism, federalism, and economics. The primary objective of this course is to provide students with the practical skills and theoretical knowledge to enable them to be effective participants in the budgeting process and critical consumers and producers of research relevant to public budgeting. Offered as CIRP 5328 and URPA 5326. Credit will be granted only once.

### **URPA5327 – COMPARATIVE ADMINISTRATION AND POLICY**

**3 Lecture Hours · 0 Lab Hours**

Extensive, multidisciplinary exposure to concepts and models of administration in developed and modernizing countries; role of the military, bureaucracy and traditional elites in development; practices and concepts of strategies for effective change.

### **URPA5328 – SMALL CITY MANAGEMENT**

**3 Lecture Hours · 0 Lab Hours**

This course will focus on problems peculiar to small cities, including administrative law; personnel, planning; public works, public safety; human services; budget and finance; public relations and parks and recreation.

### **URPA5329 – FINANCIAL MANAGEMENT IN THE PUBLIC AND NON-PROFIT SECTORS**

**3 Lecture Hours · 0 Lab Hours**

Overview of the principles of finance as they apply to the public and non-profit sectors, financial reporting for state and local governments and non-profit organizations and evaluation.

### **URPA5330 – COMMUNITY AND NEIGHBORHOOD ORGANIZATION**

**3 Lecture Hours · 0 Lab Hours**

Structure and processes in the analysis and development of community and neighborhood organizations; special emphasis given to poverty and minority communities and neighborhoods.

### **URPA5331 – LAND USE PLANNING AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Explores the law of land use in the context of the American legal, economic, and political systems. Examines leading court decisions and precedents for their background, content, and applicability to contemporary land use. Offered as CIRP 5316 and URPA 5331. Credit will be granted only once.

### **URPA5332 – PUBLIC CAPITAL BUDGETING**

**3** Lecture Hours · **0** Lab Hours

Examines governmental capital budgeting processes with a focus on understanding the significance of capital improvement planning, public facility investment, and project evaluation to sound infrastructure financing and regional economic growth. Governments purchase or construct long-lasting physical assets or facilities financed mostly through borrowing. This course aims to understand the rationale for public capital budgeting and debt instruments used to finance capital investment in the political context of public budgeting in America.

### **URPA5333 – GOVERNMENTAL AND NONPROFIT ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

This course is designed as an introduction to governmental and nonprofit accounting. The course reviews major fund accounting principles, accounting for budgetary, revenue, and expenditure funds, accounting for general capital assets and long-term liabilities, accounting for fiduciary and proprietary funds, auditing practices, and financial reporting unique to government and non-profit organizations.

### **URPA5334 – MANAGEMENT OF ECONOMIC DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on the knowledge, organization, politics, issues, techniques and processes of local economic development. Emphasis is placed on contemporary issues and trends in the rich, dynamic laboratory of local economic development in Texas. Learning objectives include: 1) comprehension of basic techniques and issues such as strategic planning, leadership strategies, financial options and evaluation; 2) increased knowledge of the positive potential of thoughtful economic development for local environmental, infrastructure, and revenue challenges; and 3) enhanced professional development through individual and classroom exposure to successful practitioners.

### **URPA5341 – PROFESSIONAL REPORT WRITING**

**3** Lecture Hours · **0** Lab Hours

Provides students entering public sector employment with writing, management information, data retrieval skills to communicate ideas and information within and outside an agency; basic writing skills reviewed, including organization of reports and grammatical construction; assignments based on actual internship position of students in public agencies.

### **URPA5342 – INTERMEDIATE DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An intermediate level examination of statistical and research techniques appropriate to urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, ANOVA, logit and probit models, and techniques for data reduction (e.g., factor analysis). Prerequisite: URPA 5302. Offered as URPA 5342 and CIRP 5317; credit will be granted only once.

### **URPA5343 – APPLIED URBAN ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Group and individual projects to develop research studies or strategies, data reports for local government, agency or citizen group; techniques appropriate to task utilized. P/F only.

### **URPA5344 – QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours

The study of qualitative research and analysis methods. Offered as CIRP 5346 and URPA 5344; credit will



be given only once.

### **URPA5345 – EVALUATION RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Methodological issues in evaluating public programs; identification of variables, indicators and analyses formats presented. Prerequisite: SUPA 5302 or URPA 5302.

### **URPA5346 – DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

### **URPA5347 – DEMOGRAPHIC METHODS**

**3** Lecture Hours · **0** Lab Hours

Examination of sources of data-census, vital statistics, special surveys, reports, special studies; techniques of analysis with particular emphasis on growth and projection models, interpretation of findings as a major policy area in urban analysis.

### **URPA5348 – COST BENEFIT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Reviews theory of cost-benefit and cost-effective analyses; explores the research, measurement and methodological requirements for the assessments of costs and benefits. It is recommended that students have completed at least one graduate course in research and one graduate class in public finance.

### **URPA5350 – INTRODUCTION TO PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate level introductory course designed to give students an understanding of public administration as a field of academic inquiry and professional practice within the context of American federalism, democratic values, institutional dynamics, and bureaucratic politics. In addition to contextually defining public administration, the course addresses government reform, intergovernmental relations, public ethics, organizational dynamics and behavior, personnel issues, budgeting, and e-governance.

### **URPA5351 – PUBLIC HUMAN RESOURCES**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to familiarize students with key functions of government personnel systems, discuss various theoretical approaches and techniques, and understand the major legal requirements of public personnel management. The course examines the structure, role, and evolution of the Civil Service, current personnel policies, and personnel management tasks such as examination, recruitment, position classification, and collective bargaining.

### **URPA5352 – CONFLICT RESOLUTION IN THE PUBLIC AND NONPROFIT SECTORS**

**3** Lecture Hours · **0** Lab Hours

Labor management at all levels of government, ability to work together to solve problems. Emphasis on collective and interest based bargaining, mediation, labor management partnership. Simulation exercises teach dynamics of bargaining, negotiation, problem solving, and small group dynamics.

### **URPA5353 – URBAN GOVERNMENT REFORM AND INNOVATION**

**3** Lecture Hours · **0** Lab Hours

Designed to acquaint students with urban governance reform and innovation. Course will explore how reformed government differs from traditional bureaucracy by contrasting it with entrepreneurial government and other innovations. Examines some of the areas most in need of reform, including service delivery, organizational capacity, and fiscal decentralization.

## **URPA5354 – MANAGEMENT OF NON-PROFIT ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines the different management areas and techniques within the nonprofit organization such as institutional management, leadership and management and the differences between them, fund-raising and financial administration, human resources-staff, volunteer, and board-coordination, internal needs assessment, planning, performance measurements, and the organizational environment and culture.

## **URPA5355 – NON-PROFIT INSTITUTIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines non-profits as community institutions with an outward focus: the political, economic, and inter-organizational environment, fund-raising and financial management, community relations and needs assessment, the role of the volunteers, boards and community leaders, marketing, and legal and government issues.

## **URPA5356 – PUBLIC ENTREPRENEURIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Public entrepreneurship involves the use of public powers, and partnerships with individuals, firms and other organizations, to achieve public purposes. The focus will be on creative management techniques and methods employed in managing the public sector.

## **URPA5357 – STRATEGIC PLANNING, POLICY AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Readings and case studies of strategic planning and management in the public and non-profit sectors; application of principles to an actual situation, involving stakeholder identification, environmental scanning, and formulation of mission statements, goals, and strategies. Offered as CIRP 5312 and URPA 5357. Credit will be granted only once.

## **URPA5358 – ETHICS IN THE PUBLIC SERVICE**

**3** Lecture Hours · **0** Lab Hours

This course examines public service theoretical ethics literature to provide a basis for each student to both reflect upon and expand their comprehension of the values and processes of ethical decision making. Beyond theoretical works, it addresses the application and evaluation of theory against the professional, workaday reality of case studies, ethical codes and other relevant materials. Three major learning objectives are: 1) achievement of a solid understanding of the dominant theoretical perspectives in the public service ethics literature; 2) competency in the development of guidelines and procedures that encourage ethical behavior, and 3) enhancement of the reach and resiliency of each member's personal commitment to public service ethics.

## **URPA5359 – ORGANIZATIONAL DIAGNOSIS**

**3** Lecture Hours · **0** Lab Hours

This class deals with tools and techniques necessary to manage public organizations. The learning objectives include ability to conduct an organizational diagnostic; and familiarity with group procedures and facilitation techniques involved in organizational change.

## **URPA5360 – URBAN MANAGEMENT/PLANNING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Designed to integrate work experience and coursework through a series of brief work-related assignments; presentations by local planning and management practitioners and class discussions and exercises. Enrollment is open to both pre-entry and in-career students. Formal internship placements with agency mentors will be arranged. P/F only.

## **URPA5361 – INTERNATIONAL ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

The course focuses on the rise of governmental and nongovernmental organizations in geopolitics, international development, and environmental management. It analyzes their institutional histories, their

organizational structures and cultures, and their role as institutional policy actors in the global diffusion of policy initiatives and managerial knowledge and practices.

### **URPA5362 – URBAN DIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Examines the growing spatial and social diversity of cities; how physical as well as socioeconomic urban structures have fostered race, class, and gender inequalities; how urban policies have addressed and can address these issues. Offered as CIRP 5362 and URPA 5362.

### **URPA5363 – CIVIL RIGHTS AND URBAN MINORITIES**

**3** Lecture Hours · **0** Lab Hours

Examines the changes in and growth of the civil rights of minorities in the United States from the close of the Civil War to the present. This is accomplished through the study of court decisions, legislation, and the civil rights movement in the 1950s and 1960s, as seen through the eyes of contemporary writers, including William Faulkner, Alice Walker, and Alex Haley.

### **URPA5364 – INSTITUTIONAL AND OTHER RADICAL ECONOMIC THEORIES**

**3** Lecture Hours · **0** Lab Hours

Examines the theoretical bases of institutional and other radical paradigms of the economic process and the alternative economic policies that logically flow from them. These are compared to and contrasted with the orthodox, or neo-classical, theoretical model of economics, and the economic policies that logically are derived from it. Emphasis will be on how and why the neo-classical model remains the dominant model for economic policy in Western, capitalist countries.

### **URPA5365 – FOUNDATIONS OF ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Explores how environmental controversy is rooted in conflict between a number of schools of environmental policy thought with divergent perspectives on issues such as how to define progress, how to balance the needs of economy and ecosystem, how to cope with environmental complexity, and what role science should play in environmental affairs. Also offered as CIRP 5343; credit will be granted only once.

### **URPA5366 – US IMMIGRATION POLICIES AND PLANNING FOR IMMIGRANTS**

**3** Lecture Hours · **0** Lab Hours

A seminar course where weekly readings would include: perspectives on international migration theory; the evolution of US immigration policy and national security; theories and urban issues related to immigrant assimilation and incorporation; urban ethnic economies and ethnic enclaves; segregation and housing of immigrants; globalization and immigrant labor networks; governance issues with providing education and other public services to immigrants and their children; and social work issues regarding generational conflict in immigrant families.

### **URPA5367 – STRATEGIC PUBLIC AND NONPROFIT HUMAN RESOURCES MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course is designed to acquaint students with the theory and practice of strategically developing, utilizing, and aligning human resources so that maximum contribution from each member of an organization is used toward the attainment of strategic long-range goals and objectives. Topics include HR strategy, diversity, leadership, selection, training and development, compensation, classification, performance appraisal, and future practices for public and non-profit organizations.

### **URPA5368 – PRACTICAL EMPLOYMENT FOR PUBLIC AND NONPROFIT MANAGERS**

**3** Lecture Hours · **0** Lab Hours

The course examines the rights and obligations of employers and employees. It does this by examining the legal background pertinent to public and nonprofit management. Topics addressed include employee selection, promotion and discipline, anti-discrimination legislation, gender and family issues legislation,

environmental, safety and health issues, whistleblower legislation, immigration law, workerAs compensation, labor law, and drug and alcohol issues.

### **URPA5390 – TOPICS IN URBAN THEORY**

**3** Lecture Hours · **0** Lab Hours

Different topics explored on an intensive basis, especially recent theoretical approaches. May be repeated for credit as topic changes.

### **URPA5391 – TOPICS IN URBAN POLICY**

**3** Lecture Hours · **0** Lab Hours

Different topics and approaches in analysis of urban problems. May be repeated for credit as topic changes.

### **URPA5392 – TOPICS IN URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Selected topics on current management problems including small city management, community-neighborhood relations, citizen involvement programs and techniques, personal and professional effectiveness as a total person, intergovernmental strategies and styles, public-private sector collaboration and co-planning, privatization, and other alternatives to economic service delivery. May be repeated as topic changes.

### **URPA5394 – SPECIAL TOPICS IN URBAN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Different topics each semester concentrate on a variety of methodological techniques and research strategies, such as demographic research and survey techniques. May be repeated for credit as topic changes.

### **URPA5395 – CONFERENCE COURSE IN URBAN AFFAIRS**

**3** Lecture Hours · **0** Lab Hours

Reading and research in a specialized area of urban affairs under the direction of a member of the graduate faculty.

### **URPA5396 – PROJECT REPORT**

**3** Lecture Hours · **0** Lab Hours

Student prepares report focusing on specific policy or professional issue, utilizing appropriate research techniques; subject area and design of project report with consent of instructor. Graded P/F/R only.

### **URPA5397 – RESEARCH REPORT**

**3** Lecture Hours · **0** Lab Hours

Student prepares report comparable to a journal article focusing on research issue, utilizing appropriate theory and research techniques; subject area and design of research report with consent of instructor. Graded P/F/R only. Prerequisite: URPA 5342.

### **URPA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded F, R.

### **URPA5399 – PUBLIC ADMINISTRATION CAPSTONE**

**3** Lecture Hours · **0** Lab Hours

This integrative applied research course assesses the student's ability to analyze, synthesize, and

formulate cogent recommendations to solve a real public sector problem. Students will write the capstone paper using concepts drawn from the MPA core curriculum, their chosen emphasis track, and the student's professional public work experience. Students are required to successfully defend their capstone paper before a Public Administration Forum consisting of SUPA faculty, students, and other interested parties. Prerequisite: completion of all other course work required for the MPA degree, including core courses and emphasis area courses, unless an exception is approved by the MPA advisor.

### **URPA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded P/F/R.

### **URPA6301 – THEORETICAL FOUNDATIONS AND PH.D. WORKSHOP**

**3** Lecture Hours · **0** Lab Hours

Explores the development and function of theoretical models and frameworks. Examines the major theories from the social sciences designed for framing urban planning or administration issues and public policy. Designed to assist doctoral students in preparing their dissertation research. Opportunities to present work in progress, share ideas, and interact with faculty. Prerequisite: CIRP 5346 and either CIRP 5317 or URPA 5342.

### **URPA6305 – SEMINAR IN URBAN POLICY PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Final course in urban policy field; focus on the political, economic, and sociological institutions in the policy process, including various theoretical approaches, and application of these multidisciplinary perspectives in the analysis of specific policy issues.

### **URPA6306 – SEMINAR IN PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Final course in the public administration field, focuses on review and integration of the theories and principles of public administration.

### **URPA6310 – MONETARY AND FISCAL POLICY: THE FEDERAL ROLE**

**3** Lecture Hours · **0** Lab Hours

Examination of the role of the federal government in maintaining economic stability, ensuring full employment and controlling inflation; exploration of liberal interventionist, conservative and radical theories of state economic management to assess the various policy alternatives and the importance of interest groups.

### **URPA6315 – PUBLIC ADMINISTRATION THEORY**

**3** Lecture Hours · **0** Lab Hours

This course is designed to critically examine public administration theory through the lenses of various governance models that have been proposed beginning with Weber's "ideal"; bureaucratic model through Osborne and Gaebler's market model to Fox and Miller's postmodern discourse model. The course begins by examining each governance model's stated or implied assumptions (about man, government, state, etc.) Second, the course considers the political philosophy and conceptual pillars on which the models are theoretically founded. Finally, the course examines the ideas of what constitutes a state as it might be relevant to a particular model and public administration.

### **URPA6320 – ADVANCED ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

The purpose of this advanced seminar is to examine the role of public agencies as organs of the State. It focuses on federal, urban, and nonprofit organizations. Learning objectives include understanding of interpretive, critical, and postmodern critiques of State's institutions; and application of power, knowledge, and gender lenses to the analysis of organizational practices, culture, and policy actions. Prerequisite: URPA 5320 or URPA 5323.

## **URPA6326 – PUBLIC BUDGETING & FINANCE**

**3** Lecture Hours · **0** Lab Hours

The primary objective of this seminar is to provide students with the theoretical underpinnings of budgeting and financial management in the public sector. Students will engage in in-depth discussions of public budgeting and financial management topics drawn from economics, decision-making models, urban politics, federalism, and others to be able to have a sound understanding of how fiscal decisions affect public administration and policy.

## **URPA6340 – RESEARCH DESIGN**

**3** Lecture Hours · **0** Lab Hours

Advanced course especially for Ph.D. students; covers logic of research design and problems of structure. Emphasis on empirical and quantitative studies.

## **URPA6346 – ADVANCED DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An introduction to selected advanced techniques related to planning analysis. Subjects include advanced applied regression analysis, multivariate logit analysis, and multinomial logistic regression. Applications of projection techniques, land use and transportation models, and methods of regional analysis. Offered as CIRP 6346 and URPA 6346. Credit will be given only once.

## **URPA6349 – DECISION MAKING AND PUBLIC POLICY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

This course explores the theoretical, practical, and topical connections between public policy and public administration through a decision-making lens. The objectives of the course are to enable students to identify, critique, and connect the theoretical and meta-theoretical assumptions of decision-making models to models of public policy analysis and public administration. Course objectives will be pursued through readings, seminar discussions, and research-based assignments that focus on the intersection between decision-making, public policy, and public administration.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
    - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Urban and Public Affairs

School of Urban and Public Affairs

Web [www.uta.edu/supa/graduate/maua.php](http://www.uta.edu/supa/graduate/maua.php)

Phone 817.272.2338

Fax 817.272.5008

551 University Hall

---

### Degrees / Certificates

#### Master's Degrees

Urban Affairs, M.A.

#### Doctoral Degrees

Public & Urban Administration, Ph.D.

Urban Planning & Public Policy, Ph.D.

---

### Graduate Faculty

[Mahyar Arefi](#)  
[Shima Hamidi](#)

**Graduate Advisor**  
[Karolyn Field](#)

**Program Director**  
[David Coursey](#)

**Professor**  
[Ardeshir Anjomani](#)  
[Richard Cole](#)

**Associate Professor**  
[Enid Arvidson](#)  
[Rod Hissong](#)  
[Maria Martinez-Cosio](#)  
[Alejandro Rodriguez](#)

**Assistant Professor**  
[Colleen Casey](#)  
[Darla Hamann](#)

---

### Graduate Advisors

[Ardeshir Anjomani](#)  
*Urban Planning & Public Policy, Ph.D.*

[David Coursey](#)



*Public & Urban Administration, Ph.D.*

**Karolyn Field**

*Public & Urban Administration, Ph.D.*

*Urban Affairs, M.A.*

*Urban Planning & Public Policy, Ph.D.*

**Anthony Valdez**

*Public & Urban Administration, Ph.D.*

*Urban Affairs, M.A.*

*Urban Planning & Public Policy, Ph.D.*

---

## Department Information

### Courses

# Department Information

## Master of Arts in Urban Affairs

- **General**
- ***Proposed Admissions Changes Effective August 2014 >>***
- **Factors Considered for Admission**
- **Types of Admission**
- **Scholarship/Fellowship Criteria**
- **SUPA Inadequate Academic Progress Point System**
- **Degree Requirements and Courses**
- **Areas of Concentration**

## Dual Degree Program

## Master of Arts in Urban Affairs

### General

The Master of Arts in Urban Affairs (MAUA) prepares students for policy and/or management positions in local government, regional government, nonprofit and private sector consulting and for other professional positions in economic development, social planning, community organizing, and urban journalism.

The program is organized around public policy issues with emphasis on the problems and questions related to life in urban communities. Because urban issues are complex and require the understanding and skills of many disciplines, the program is interdisciplinary in character, curriculum content, teaching staff, and enrollment. The degree is built around an urban core with students choosing a policy or non-profit-oriented concentration.

### Factors Considered for Admission

The MAUA program takes a holistic approach to the application review process. Each applicant file is reviewed individually with equal consideration given to the quantitative and qualitative aspects of the student's record. A complete application includes:

- Graduate Record Exam (GRE) score: Writing (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Undergraduate Grade Point Average (GPA): The undergraduate GPA based on the last



60 hours of course work as calculated by the Graduate School from the official transcript.

- Graduate Record Exam (GRE) scores: Verbal and Quantitative (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Letters of Recommendation attesting to the applicant's potential to do Master's-level work and complete the program. Letters for Master's programs should be from professors or supervisors at work (download Letter of Recommendation form)
- Essay by applicant approximately one double-spaced page in length (approximately 250 words). The Essay is considered both for its content and quality of writing. The Essay should address the following questions: 1. Why do you want to earn a Master's degree in the program for which you are applying? 2. What relevant background and experience do you bring to the program? The essay can also include other concerns you'd like to bring to the attention of the Graduate Advisor or Master's Admissions Committee.
- Non-native English speakers only: TOEFL or IELTS scores (Exceptions: An applicant holding either a Bachelor's or a Master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, or IELTS score for admission purposes.)

### Waiver

- i. Submission of GRE scores may be waived for applicants to SUPA master's programs who hold a bachelor's degree from UTA with a 3.0 or higher GPA in their last 60 hours as calculated by the Graduate School.
- ii. Submissions of TOEFL or IELTS scores may be waived for applicants to SUPA master's programs who hold a Bachelor's or Master's degree from a regionally accredited U.S. college or university.

### Types of Admission

#### Unconditional Admission:

1. Applicants who meet all the following requirements will be considered for unconditional admission: a preferred minimum Writing GRE score of 4.0
2. Minimum Undergraduate GPA of 3.0
3. A preferred minimum Verbal GRE score of 450 (Revised GRE Test: 150), and preferred minimum Quantitative GRE of 450 (Revised GRE Test: 141), and a preferred minimum combined Verbal and Quantitative score of 1,000 (Revised Test Combined 291)
4. Outstanding letters of recommendation
5. Strong, well-written personal essay
6. Non-native English speakers only: TOEFL scores of at least 550 (paper-based), 213 (computer-based), or 79 (iBT) with sectional scores that meet or exceed 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or, IELTS score of at least 6.5.

#### Probationary Admission:

Applicants who do not meet all requirements for Unconditional admission will be considered for Probationary admission on the basis of the strength of all the listed admission factors. Test scores will not constitute the sole or primary basis for ending consideration of an applicant. Under Probationary admission, special course requirements or other conditions may be imposed by the SUPA Master's Admissions Committee. Applicants who meet all the standards for Unconditional admission except for deficiency in Writing GRE score will be considered for Probationary Admission conditional on completing an approved Writing course in their first semester.

#### Other types of admission decisions pertaining to Master's applicants:

1. **Deferred:** Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admissibility can be determined, may be deferred until records are complete.

2. **Provisional:** Applicants who are unable to supply all required documentation prior to the admission deadline but who otherwise appear to meet admission requirements may be granted Provisional admission pending submission of complete and satisfactory credentials before the start of classes in which they have registered in a Provisional status.
3. **Denied:** Applicants who fail to meet more than one of the admission requirements and for whom the SUPA Master's Admission Committee finds there is insufficient basis to justify any other kind of admission will be Denied admission. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

### Scholarship/Fellowship Criteria

- Graduate students with a GPA of 3.0 or better who are enrolled in six hours or more are eligible to apply for competitive scholarships and fellowships.
- Scholarships and fellowships for Master's and Doctoral students will be competitively awarded based on consideration of the all admission criteria assessed by their admitting programs.

### SUPA Inadequate Academic Progress Point System

A student may be subject to dismissal from the program if they accumulate 4 deficiency points while pursuing their Master's degree or their Ph.D. degree. Deficiency points may not be removed from a student's record by repeating a course or completing additional coursework. For students who complete a Master's degree in SUPA and proceed to work on a SUPA Ph.D., any accumulated deficiency points are not carried forward to the more advanced degree.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

### Degree Requirements and Courses

A total of 39 (project-track) or 42 (thesis-track) credits are required to complete the degree.

#### Required Urban Core Courses (9 hours)

- URPA 5304 Urban Politics or URPA 5309 Intergovernmental Relations
- URPA 5300 Foundation of Urban Theory or URPA 5305 Theories of Urban Societies
- URPA 5306 The Urban Economy

#### Required Research and Analysis Courses (12-15 hours)

- URPA 5302 Foundations of Urban Research and Analysis
- URPA 5345 Evaluation Research

#### Project Track

- URPA 5341 Professional Report Writing or URPA 5342 Strategies for Urban Research or URPA 5344/CIRP 5346 Qualitative Analysis
- URPA 5396 Project Report

#### Thesis Track

- URPA 5342 Strategies for Urban Research or CIRP 5346 Qualitative Analysis
- URPA 5698 Thesis

### Areas of Concentration (18 hours)

Students can specialize in one of five concentration areas as described below. As an alternative, they can petition to substitute another self-designed concentration area, such as criminal justice, education policy, social work, or historical preservation.

#### Economic Development

This concentration is designed for students interested in understanding the politics, policy, and management of economic development. Students will learn about the legal and financial aspects of economic development as well as issues related to community development, land use, and real estate development.

**Required**

URPA 5312 Economic Policy or URPA 5364 Institutional and Other Radical Economic Theories  
URPA 5334 Management of Economic Development  
CIRP 5322 Economic Development Planning and Policy

**Economic Development Electives (choose 3)**

URPA 5311 Social Policy Formation  
URPA 5331 Land Use Planning and the Law (also offered as CIRP 5316)  
URPA 5332 Capital Budgeting  
URPA 5348 Cost-Benefit Analysis  
CIRP 5305 Land Use Management and Development  
CIRP 5310 Introduction to Urban Structure, Policy and Planning  
CIRP 5313 Urban Growth Policies  
CIRP 5323 Historic Preservation  
CIRP 5326 Cultural Planning & Urban Development  
CIRP 5345 Planning & Real Estate Development  
CIRP 5356 Introduction to Geographic Information Systems  
CIRP 5364 Economic Base and Industrial Development

**Environmental Policy**

This area of concentration is designed for students interested in careers in the public and private sectors which focus on environmental concerns. Students will study environmental policy in general and may choose to focus their attention of sustainable growth or transportation.

**Required**

URPA 5311 Social Policy Formation  
URPA 5317 Urban Environmental Policy (also offered as CIRP 5342)  
URPA 5365 Foundations of Environmental Policy (also offered as CIRP 5343)

**Environment Electives (choose 3)**

URPA 5307 Urban Geography  
URPA 5309 Intergovernmental Relations (if not selected as urban core requirement)  
URPA 5310 Urban Policy  
URPA 5312 Economic Policy  
URPA 5313 Community Development (also offered as CIRP 5324)  
URPA 5319 Urban Problems (also offered as CIRP 5342)  
URPA 5322 Politics, Policy, and Public Administration  
URPA 5330 Community and Neighborhood Organization  
URPA 5334 Management of Economic Development  
URPA 5348 Cost-Benefit Analysis  
URPA 5357 Strategic Planning and Management (also offered as CIRP 5312)  
CIRP 5306 Urban Revitalization  
CIRP 5309 Transportation/Land Use Modeling & Policy Analysis  
CIRP 5313 Urban Growth Policies  
CIRP 5315 Transportation Policy, Programs, and History  
CIRP 5316 Land Use Planning and the Law  
CIRP 5322 Economic Development Planning and Policy  
CIRP 5341 Environmental Regulations: Laws and Planning  
CIRP 5350 Environmental Planning  
CIRP 5351 Techniques of Environmental Assessment  
CIRP 5353 Environmental Law  
CIRP 5356 Introduction to Geographic Information Systems  
CIRP 5358 Intelligent Transportation Systems and Planning

## Non-Profit Management

This area of concentration is designed for students interested in careers in non-profit organizations. The curriculum is designed to education students on non-profit management issues as well as issues related to non-profit clientele and the role of non-profits in urban government in general. Students pursuing the non-profit concentration may also elect to work toward a Certificate in Non-profit Management (<http://www.uta.edu/supa/certificates/>).

### Required

URPA 5354 Management of Nonprofit Organizations  
URPA 5355 Nonprofit Institutions

### Management Electives (chose at least 2, up to 4)

URPA 5303 The Metroplex  
URPA 5313 Community Development (also offered as CIRP 5306: Urban Revitalization)  
URPA 5318 Social Welfare Policy  
URPA 5326 Public Budgeting  
URPA 5329 Financial Management in the Public Sector  
URPA 5330 Community and Neighborhood Organization  
URPA 5333 Governmental and Nonprofit Accounting  
URPA5348 Cost Benefit Analysis  
URPA 5351 Personnel and Human Resources in the Public Sector  
URPA 5352 Conflict Resolution  
URPA5352 Personnel Management and Conflict Resolution in the Public Sector  
URPA 5356 Public Entrepreneurial Management  
URPA 5357 Strategic Planning, Policy, and Management  
URPA 5358 Ethics in Public Service  
URPA 5359 Organizational Diagnosis  
CIRP 5319 Agencies of Planning and Administration  
SOCW 5303 Foundations of Social Policy and Services  
SOCW 6371 Community and Administrative Practice  
SOCW 6363 Budgeting and Financial Management  
SOCW 6386 Grant Proposal Development Seminar  
MARK 5311 Marketing

### Field Electives (chose as many as required to make total electives of 4)

URPA 5311 Social Policy Formation  
URPA 5312 Economic Policy  
URPA 5315 Urban Education Policy  
URPA 5317 Urban Environmental Policy (also offered as CIRP 5342)  
URPA 5319 Urban Problems (also offered as CIRP 5342)  
URPA 5362 Urban Diversity (also offered as CIRP 5362)  
URPA 5363 Civil Rights and Urban Minorities  
URPA 5365 Foundations of Environmental Policy (also offered as CIRP 5343)  
URPA 5366 U.S. Immigration Policies and Planning for Immigrants  
URPA 5391 Topics in Urban Policy  
CIRP 5313 Urban Growth Policies  
CIRP 5315 Transportation Policy, Programs, and History

## Urban Policy Analysis

This track is designed for students seeking a greater understanding in public policy. The curriculum is designed to give students an understanding of the politics and economics of public policy formation and implementation. Students in this track may choose to take courses related to a specific policy area (e.g., welfare, education, or transportation) or they may chose a more generalist perspective.

### Required

URPA 5304 The Urban Political System or URPA 5309 Intergovernmental Relations  
(whichever not taken in core)  
URPA 5311 Social Policy Formation

URPA 5312 Economic Policy or URPA 5364 Institutional and Other Radical Economic Theories

**Policy Electives (chose 3)**

URPA 5307 Urban Geography  
URPA 5308 Urban History  
URPA 5310 Urban Policy and the Law  
URPA 5312 Economic Policy  
URPA 5313 Community Development (also offered as CIRP 5324)  
URPA 5314 Health Policy  
URPA 5315 Urban Education Policy  
URPA 5316 Human Services  
URPA 5317 Urban Environmental Policy (also offered as CIRP 5342)  
URBA 5318 Social Welfare Policy  
URPA 5319 Urban Problems (also offered as CIRP 5342)  
URPA 5348 Cost-Benefit Analysis  
URPA 5362 Urban Diversity (also offered as CIRP 5362)  
URPA 5363 Civil Rights and Urban Minorities  
URPA 5365 Foundations of Environmental Policy (also offered as CIRP 5343)  
URPA 5366 U.S. Immigration Policies and Planning for Immigrants  
URPA 5391 Topics in Urban Policy  
CIRP 5313 Urban Growth Policies  
CIRP 5315 Transportation Policy, Programs, and History

**Urban Social Planning**

This concentration is designed for students interested in planning careers in non-profit and public agencies. The curriculum provides students with knowledge of community organizing and community development as well as offering them the opportunity to focus on specific social issues.

**Required**

URPA 5313 Community Development (also offered as CIRP 5324)  
URPA 5330 Community and Neighborhood Organization  
CIRP 5303 Planning History and Theory

**Social Planning Electives (chose 3)**

URPA 5307 Urban Geography  
URPA 5311 Social Policy Formation  
URPA 5315 Urban Education Policy  
URPA 5318 Social Welfare Policy  
URPA 5331 Land Use Planning and the Law (also offered as CIRP 5316)  
URPA 5349 Database Management for Urban Plan and Mgmt (also CIRP 5320)  
URPA 5362 Urban Diversity (also offered as CIRP 5362)  
URPA 5363 Civil Rights and Urban Minorities  
URPA 5393 Topics in Urban Planning  
URPA 5391 Topics in Urban Policy (depending on topic, with approval)  
CIRP 5304 Plan and Policy Implementation  
CIRP 5306 Urban Revitalization  
CIRP 5310 Introduction to Urban Structure, Policy and Planning  
CIRP 5311 Elements of Urban Design  
CIRP 5313 Urban Growth Policies  
CIRP 5344 Human Service Planning  
CIRP 5354 Housing Planning, Policy, & Finance  
CIRP 5356 Introduction to Geographic Information Systems  
CIRP 5358 Intelligent Transportation Systems and Planning

**Student Designed Plan**

With the guidance of the graduate advisor and program director, students can elect to create a concentration of study targeting their specific interests.

## Dual Degree Program

Students in Urban Affairs may participate in a dual degree program whereby they can earn a Master of Arts in Urban Affairs and a Master of Science in Social Work, or Master's in City and Regional Planning, or a Master's in Public Administration. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs. To participate in the dual degree program, students must make separate application to each program and must submit a separate Program of Work for each degree. Those interested in the dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement on "Dual Degree Programs" in the general admission section of this catalog.

## PUAD Courses

### PUAD6399 – DISSERTATION

3 Lecture Hours · 0 Lab Hours

Graded F/R only.

### PUAD6699 – DISSERTATION

6 Lecture Hours · 0 Lab Hours

Graded F/R/P/W only.

### PUAD6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

Graded P/F/R.

### PUAD7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## SUPA Courses

### SUPA5300 – FOUNDATIONS OF URBAN PLANNING AND SOCIOLOGY

3 Lecture Hours · 0 Lab Hours

How urban communities develop as human settlements, their life cycles, expansion, and decay. Special consideration is given to social policy. Topics such as poverty, race, neighborhoods, and environment.

### SUPA5301 – FOUNDATIONS OF URBAN POLITICS AND ECONOMICS

3 Lecture Hours · 0 Lab Hours



Examines the major political and economic institutions and processes in urban communities and their effect on urban policy.

## UPPP Courses

### UPPP6399 – DISSERTATION

3 Lecture Hours · 0 Lab Hours

Graded R/F only.

### UPPP6699 – DISSERTATION

6 Lecture Hours · 0 Lab Hours

Graded R/F/P/W only.

### UPPP6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

Graded P/F/R.

### UPPP7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## URPA Courses

### URPA5300 – FOUNDATION OF URBAN THEORY

3 Lecture Hours · 0 Lab Hours

Social theories that explain the life cycle of urban communities as they develop, expand, and are sustained or decay are presented and contrasted. Special consideration is given to role of social policy. Topics such as poverty, race, neighborhoods, and environment are addressed.

### URPA5301 – FOUNDATIONS OF URBAN POLITICS AND ECONOMICS

3 Lecture Hours · 0 Lab Hours

Examines the major political and economic institutions and processes in urban communities and their effect on urban policy.

### URPA5302 – FOUNDATIONS OF URBAN RESEARCH AND ANALYSIS

3 Lecture Hours · 0 Lab Hours

An introduction to research methodologies, both quantitative and qualitative, and statistical techniques useful in the analysis of urban trends and administrative programs. Previously taught as SUPA 5302.

### URPA5303 – THE METROPLEX: SURVEY OF URBAN AFFAIRS, PLANNING,

## **ADMINISTRATION:**

**3** Lecture Hours · **0** Lab Hours

The Metroplex provides an ideal laboratory for study with more than 100 cities and other governmental units, thousands of neighborhoods and business enterprises, major concentration of minorities and dozens of ethnic groups. An in-depth orientation on urban dynamics utilizing senior faculty members, governmental and community leaders, and current research reports and studies.

## **URPA5304 – URBAN POLITICS**

**3** Lecture Hours · **0** Lab Hours

Examination of the city as a political system, including the impact of urbanization and fragmentation on policies; input dimensions, including voting patterns and interest group development; decision-making structures, especially types of community power structures and the impact of the reform movement on structural processes. Also offered as POLS 5305; credit will be granted only once.

## **URPA5305 – THEORIES OF URBAN SOCIETY**

**3** Lecture Hours · **0** Lab Hours

Several theoretical perspectives of the community and community organization examined. Special emphasis given to theories from human ecology, organization and stratification, and social welfare.

## **URPA5306 – THE URBAN ECONOMY**

**3** Lecture Hours · **0** Lab Hours

Internal dynamics of the growth and development of the urban system and its relation to the national economy. National and urban economic policy, urban growth and land use, market imperfections, urban financial issues, and the environmental implications of urban growth studied through lecture, game simulation and policy debates.

## **URPA5307 – URBAN GEOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

Emphasizes real aspects associated with urban physical environments and social, behavioral and financial processes that shape these environments.

## **URPA5308 – URBAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

Extensive reading primarily in the history of the urbanization and metropolitanization of the people of the United States. Historical methods as exemplified in the works of leading historians and analyzed; examples of the scholarship of selected historians and treatises on selected cities, regions, and urban institutions studied.

## **URPA5309 – INTERGOVERNMENTAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of the implications of federalism, and the changing nature of intergovernmental relations on state and local management, administration, planning, and policy making.

## **URPA5310 – URBAN POLICY AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of federal government and selected state and local government policies and programs designed to influence the course of change and the future development of cities and urban areas. The role of "private" governments in affecting policy explored.

## **URPA5311 – SOCIAL POLICY FORMATION**

**3** Lecture Hours · **0** Lab Hours

Utilization of a sociological approach in the study of policy formation in such areas as aging, social



planning, and community problem solving.

### **URPA5312 – ECONOMIC POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines structure of the U.S. economic system and its impact on welfare of consumers, workers, and industry; public policy efforts to provide for management of critical economic variables are evaluated for effectiveness and equity as they impact different interest groups.

### **URPA5313 – COMMUNITY DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on current problems of community development and neighborhood revitalization. Housing, community assets, the roles of community development corporations and social capital in cities, and community economic development will be analyzed. Federal, state, and local policies, with grassroots initiatives evaluated for effectiveness on promoting alternatives for community building and organizing. Also offered as CIRP 5324; credit will be granted only once.

### **URPA5314 – HEALTH POLICY**

**3** Lecture Hours · **0** Lab Hours

Current health policy and programs, examination of historical development, economic and legal aspects, interest groups and health constituencies.

### **URPA5315 – URBAN EDUCATION POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines current education policy and programs, including public school districts, charter schools, and vouchers; economic and political aspects; role of adult education programs in improving human capital.

### **URPA5316 – HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Social welfare institutions: private and public; needs assessment, resource allocation, procedures, city/state/federal/private policy review; highlights of current system demands and changes. Offered as URPA 5316 and CIRP 5344; credit will be granted only once.

### **URPA5317 – ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the physical environmental dimensions of urbanization including such factors as pollution, waste disposal, and land use; stresses the role of economic, social, and political institutions as these affect environmental quality of the city. Offered as CIRP 5342 and URPA 5317; credit will be granted only once.

### **URPA5318 – SOCIAL WELFARE POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines recent welfare reform measures (federal, state, and local levels), the political issues behind them, and their influence on urban life. A central topic will be the impact of a changing society on social welfare policy needs, including analyses of labor force participation and family structure.

### **URPA5319 – URBAN PROBLEMS**

**3** Lecture Hours · **0** Lab Hours

Specific urban problems examined in depth, traced to their historical origins to see how they or similar problems have been dealt with in other times and places. Students will then propose possible solutions to the problems in their contemporary form. Offered as CIRP 5347 and URPA 5319.

### **URPA5320 – PUBLIC ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Historical evolution of administrative theory including classical, sociological and social-psychological dimensions; decision-making theory; implications of public interest theory for public management; basic concepts of organization development and impact on public administration paradigms; new public administration; and future of public urban organization. Also offered as CRCJ 5309 and POLS 5303; credit will be granted only once.

### **URPA5321 – URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses through lectures, readings, and exercises on major administrative process: personnel and policy development and analysis; management styles and key contemporary management problems explored through presentations by prominent local practitioners.

### **URPA5322 – POLITICS, POLICY AND PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Development of theory of bureaucracy; bureaucracy as social issue; ethics and morality in public bureaucracy; mobilization of special interest support; power differentials in urban agencies; policy process in bureaucracy; new bureaucratic structures and processes for urban policy making.

### **URPA5323 – PUBLIC ORGANIZATIONAL CHANGE**

**3** Lecture Hours · **0** Lab Hours

Current theories and concepts of public organizational change with particular emphasis on organization development and action research; theoretical roots of contemporary change literature traced through readings and discussion of classical organization theory, public administration including New Public Administration decision making, public interest, phenomenology, learning theory and general systems. Prerequisite: basic organizational theory course or permission of instructor.

### **URPA5324 – URBAN PUBLIC FINANCE**

**3** Lecture Hours · **0** Lab Hours

Tax, revenue, and fiscal problems of cities and local governments in metropolitan areas; problems of matching costs and benefits in providing public services among different local governments; increasingly complex dimensions of intergovernmental fiscal relations and public budgeting systems. Offered as URPA 5324 and CIRP 5329; credit will be granted only once

### **URPA5325 – ADMINISTRATIVE LAW**

**3** Lecture Hours · **0** Lab Hours

Examines scope and role of administrative regulation of and by governmental agencies; explores constitutional principles which limit administrative power and administrative law which governs classical areas of conflict between administrative agencies and their constituencies; rule-making, judicial review and informal regulatory processes of importance to public officials.

### **URPA5326 – PUBLIC BUDGETING**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the principles and practices used by federal, state, and local governments to acquire and spend revenues within the context of American democracy, capitalism, federalism, and economics. The primary objective of this course is to provide students with the practical skills and theoretical knowledge to enable them to be effective participants in the budgeting process and critical consumers and producers of research relevant to public budgeting. Offered as CIRP 5328 and URPA 5326. Credit will be granted only once.

### **URPA5327 – COMPARATIVE ADMINISTRATION AND POLICY**

**3** Lecture Hours · **0** Lab Hours

Extensive, multidisciplinary exposure to concepts and models of administration in developed and modernizing countries; role of the military, bureaucracy and traditional elites in development; practices and concepts of strategies for effective change.

### **URPA5328 – SMALL CITY MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course will focus on problems peculiar to small cities, including administrative law; personnel, planning; public works, public safety; human services; budget and finance; public relations and parks and recreation.

### **URPA5329 – FINANCIAL MANAGEMENT IN THE PUBLIC AND NON-PROFIT SECTORS**

**3** Lecture Hours · **0** Lab Hours

Overview of the principles of finance as they apply to the public and non-profit sectors, financial reporting for state and local governments and non-profit organizations and evaluation.

### **URPA5330 – COMMUNITY AND NEIGHBORHOOD ORGANIZATION**

**3** Lecture Hours · **0** Lab Hours

Structure and processes in the analysis and development of community and neighborhood organizations; special emphasis given to poverty and minority communities and neighborhoods.

### **URPA5331 – LAND USE PLANNING AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Explores the law of land use in the context of the American legal, economic, and political systems. Examines leading court decisions and precedents for their background, content, and applicability to contemporary land use. Offered as CIRP 5316 and URPA 5331. Credit will be granted only once.

### **URPA5332 – PUBLIC CAPITAL BUDGETING**

**3** Lecture Hours · **0** Lab Hours

Examines governmental capital budgeting processes with a focus on understanding the significance of capital improvement planning, public facility investment, and project evaluation to sound infrastructure financing and regional economic growth. Governments purchase or construct long-lasting physical assets or facilities financed mostly through borrowing. This course aims to understand the rationale for public capital budgeting and debt instruments used to finance capital investment in the political context of public budgeting in America.

### **URPA5333 – GOVERNMENTAL AND NONPROFIT ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

This course is designed as an introduction to governmental and nonprofit accounting. The course reviews major fund accounting principles, accounting for budgetary, revenue, and expenditure funds, accounting for general capital assets and long-term liabilities, accounting for fiduciary and proprietary funds, auditing practices, and financial reporting unique to government and non-profit organizations.

### **URPA5334 – MANAGEMENT OF ECONOMIC DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on the knowledge, organization, politics, issues, techniques and processes of local economic development. Emphasis is placed on contemporary issues and trends in the rich, dynamic laboratory of local economic development in Texas. Learning objectives include: 1) comprehension of basic techniques and issues such as strategic planning, leadership strategies, financial options and evaluation; 2) increased knowledge of the positive potential of thoughtful economic development for local environmental, infrastructure, and revenue challenges; and 3) enhanced professional development through individual and classroom exposure to successful practitioners.

### **URPA5341 – PROFESSIONAL REPORT WRITING**

**3** Lecture Hours · **0** Lab Hours

Provides students entering public sector employment with writing, management information, data retrieval skills to communicate ideas and information within and outside an agency; basic writing skills reviewed, including organization of reports and grammatical construction; assignments based on actual internship

position of students in public agencies.

### **URPA5342 – INTERMEDIATE DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An intermediate level examination of statistical and research techniques appropriate to urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, ANOVA, logit and probit models, and techniques for data reduction (e.g., factor analysis). Prerequisite: URPA 5302. Offered as URPA 5342 and CIRP 5317; credit will be granted only once.

### **URPA5343 – APPLIED URBAN ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Group and individual projects to develop research studies or strategies, data reports for local government, agency or citizen group; techniques appropriate to task utilized. P/F only.

### **URPA5344 – QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours

The study of qualitative research and analysis methods. Offered as CIRP 5346 and URPA 5344; credit will be given only once.

### **URPA5345 – EVALUATION RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Methodological issues in evaluating public programs; identification of variables, indicators and analyses formats presented. Prerequisite: SUPA 5302 or URPA 5302.

### **URPA5346 – DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

### **URPA5347 – DEMOGRAPHIC METHODS**

**3** Lecture Hours · **0** Lab Hours

Examination of sources of data-census, vital statistics, special surveys, reports, special studies; techniques of analysis with particular emphasis on growth and projection models, interpretation of findings as a major policy area in urban analysis.

### **URPA5348 – COST BENEFIT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Reviews theory of cost-benefit and cost-effective analyses; explores the research, measurement and methodological requirements for the assessments of costs and benefits. It is recommended that students have completed at least one graduate course in research and one graduate class in public finance.

### **URPA5350 – INTRODUCTION TO PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate level introductory course designed to give students an understanding of public administration as a field of academic inquiry and professional practice within the context of American federalism, democratic values, institutional dynamics, and bureaucratic politics. In addition to contextually defining public administration, the course addresses government reform, intergovernmental relations, public ethics, organizational dynamics and behavior, personnel issues, budgeting, and e-governance.

### **URPA5351 – PUBLIC HUMAN RESOURCES**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to familiarize students with key functions of government personnel systems,

discuss various theoretical approaches and techniques, and understand the major legal requirements of public personnel management. The course examines the structure, role, and evolution of the Civil Service, current personnel policies, and personnel management tasks such as examination, recruitment, position classification, and collective bargaining.

### **URPA5352 – CONFLICT RESOLUTION IN THE PUBLIC AND NONPROFIT SECTORS**

**3** Lecture Hours · **0** Lab Hours

Labor management at all levels of government, ability to work together to solve problems. Emphasis on collective and interest based bargaining, mediation, labor management partnership. Simulation exercises teach dynamics of bargaining, negotiation, problem solving, and small group dynamics.

### **URPA5353 – URBAN GOVERNMENT REFORM AND INNOVATION**

**3** Lecture Hours · **0** Lab Hours

Designed to acquaint students with urban governance reform and innovation. Course will explore how reformed government differs from traditional bureaucracy by contrasting it with entrepreneurial government and other innovations. Examines some of the areas most in need of reform, including service delivery, organizational capacity, and fiscal decentralization.

### **URPA5354 – MANAGEMENT OF NON-PROFIT ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines the different management areas and techniques within the nonprofit organization such as institutional management, leadership and management and the differences between them, fund-raising and financial administration, human resources-staff, volunteer, and board-coordination, internal needs assessment, planning, performance measurements, and the organizational environment and culture.

### **URPA5355 – NON-PROFIT INSTITUTIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines non-profits as community institutions with an outward focus: the political, economic, and inter-organizational environment, fund-raising and financial management, community relations and needs assessment, the role of the volunteers, boards and community leaders, marketing, and legal and government issues.

### **URPA5356 – PUBLIC ENTREPRENEURIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Public entrepreneurship involves the use of public powers, and partnerships with individuals, firms and other organizations, to achieve public purposes. The focus will be on creative management techniques and methods employed in managing the public sector.

### **URPA5357 – STRATEGIC PLANNING, POLICY AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Readings and case studies of strategic planning and management in the public and non-profit sectors; application of principles to an actual situation, involving stakeholder identification, environmental scanning, and formulation of mission statements, goals, and strategies. Offered as CIRP 5312 and URPA 5357. Credit will be granted only once.

### **URPA5358 – ETHICS IN THE PUBLIC SERVICE**

**3** Lecture Hours · **0** Lab Hours

This course examines public service theoretical ethics literature to provide a basis for each student to both reflect upon and expand their comprehension of the values and processes of ethical decision making. Beyond theoretical works, it addresses the application and evaluation of theory against the professional, workaday reality of case studies, ethical codes and other relevant materials. Three major learning objectives are: 1) achievement of a solid understanding of the dominant theoretical perspectives in the public service ethics literature; 2) competency in the development of guidelines and procedures that encourage ethical behavior, and 3) enhancement of the reach and resiliency of each member's personal

commitment to public service ethics.

### **URPA5359 – ORGANIZATIONAL DIAGNOSIS**

**3** Lecture Hours · **0** Lab Hours

This class deals with tools and techniques necessary to manage public organizations. The learning objectives include ability to conduct an organizational diagnostic; and familiarity with group procedures and facilitation techniques involved in organizational change.

### **URPA5360 – URBAN MANAGEMENT/PLANNING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Designed to integrate work experience and coursework through a series of brief work-related assignments; presentations by local planning and management practitioners and class discussions and exercises. Enrollment is open to both pre-entry and in-career students. Formal internship placements with agency mentors will be arranged. P/F only.

### **URPA5361 – INTERNATIONAL ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

The course focuses on the rise of governmental and nongovernmental organizations in geopolitics, international development, and environmental management. It analyzes their institutional histories, their organizational structures and cultures, and their role as institutional policy actors in the global diffusion of policy initiatives and managerial knowledge and practices.

### **URPA5362 – URBAN DIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Examines the growing spatial and social diversity of cities; how physical as well as socioeconomic urban structures have fostered race, class, and gender inequalities; how urban policies have addressed and can address these issues. Offered as CIRP 5362 and URPA 5362.

### **URPA5363 – CIVIL RIGHTS AND URBAN MINORITIES**

**3** Lecture Hours · **0** Lab Hours

Examines the changes in and growth of the civil rights of minorities in the United States from the close of the Civil War to the present. This is accomplished through the study of court decisions, legislation, and the civil rights movement in the 1950s and 1960s, as seen through the eyes of contemporary writers, including William Faulkner, Alice Walker, and Alex Haley.

### **URPA5364 – INSTITUTIONAL AND OTHER RADICAL ECONOMIC THEORIES**

**3** Lecture Hours · **0** Lab Hours

Examines the theoretical bases of institutional and other radical paradigms of the economic process and the alternative economic policies that logically flow from them. These are compared to and contrasted with the orthodox, or neo-classical, theoretical model of economics, and the economic policies that logically are derived from it. Emphasis will be on how and why the neo-classical model remains the dominant model for economic policy in Western, capitalist countries.

### **URPA5365 – FOUNDATIONS OF ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Explores how environmental controversy is rooted in conflict between a number of schools of environmental policy thought with divergent perspectives on issues such as how to define progress, how to balance the needs of economy and ecosystem, how to cope with environmental complexity, and what role science should play in environmental affairs. Also offered as CIRP 5343; credit will be granted only once.

### **URPA5366 – US IMMIGRATION POLICIES AND PLANNING FOR IMMIGRANTS**

**3** Lecture Hours · **0** Lab Hours

A seminar course where weekly readings would include: perspectives on international migration theory; the

evolution of US immigration policy and national security; theories and urban issues related to immigrant assimilation and incorporation; urban ethnic economies and ethnic enclaves; segregation and housing of immigrants; globalization and immigrant labor networks; governance issues with providing education and other public services to immigrants and their children; and social work issues regarding generational conflict in immigrant families.

### **URPA5367 – STRATEGIC PUBLIC AND NONPROFIT HUMAN RESOURCES MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course is designed to acquaint students with the theory and practice of strategically developing, utilizing, and aligning human resources so that maximum contribution from each member of an organization is used toward the attainment of strategic long-range goals and objectives. Topics include HR strategy, diversity, leadership, selection, training and development, compensation, classification, performance appraisal, and future practices for public and non-profit organizations.

### **URPA5368 – PRACTICAL EMPLOYMENT FOR PUBLIC AND NONPROFIT MANAGERS**

**3** Lecture Hours · **0** Lab Hours

The course examines the rights and obligations of employers and employees. It does this by examining the legal background pertinent to public and nonprofit management. Topics addressed include employee selection, promotion and discipline, anti-discrimination legislation, gender and family issues legislation, environmental, safety and health issues, whistleblower legislation, immigration law, workerAs compensation, labor law, and drug and alcohol issues.

### **URPA5390 – TOPICS IN URBAN THEORY**

**3** Lecture Hours · **0** Lab Hours

Different topics explored on an intensive basis, especially recent theoretical approaches. May be repeated for credit as topic changes.

### **URPA5391 – TOPICS IN URBAN POLICY**

**3** Lecture Hours · **0** Lab Hours

Different topics and approaches in analysis of urban problems. May be repeated for credit as topic changes.

### **URPA5392 – TOPICS IN URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Selected topics on current management problems including small city management, community-neighborhood relations, citizen involvement programs and techniques, personal and professional effectiveness as a total person, intergovernmental strategies and styles, public-private sector collaboration and co-planning, privatization, and other alternatives to economic service delivery. May be repeated as topic changes.

### **URPA5394 – SPECIAL TOPICS IN URBAN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Different topics each semester concentrate on a variety of methodological techniques and research strategies, such as demographic research and survey techniques. May be repeated for credit as topic changes.

### **URPA5395 – CONFERENCE COURSE IN URBAN AFFAIRS**

**3** Lecture Hours · **0** Lab Hours

Reading and research in a specialized area of urban affairs under the direction of a member of the graduate faculty.

### **URPA5396 – PROJECT REPORT**



**3 Lecture Hours · 0 Lab Hours**

Student prepares report focusing on specific policy or professional issue, utilizing appropriate research techniques; subject area and design of project report with consent of instructor. Graded P/F/R only.

### **URPA5397 – RESEARCH REPORT**

**3 Lecture Hours · 0 Lab Hours**

Student prepares report comparable to a journal article focusing on research issue, utilizing appropriate theory and research techniques; subject area and design of research report with consent of instructor. Graded P/F/R only. Prerequisite: URPA 5342.

### **URPA5398 – THESIS**

**3 Lecture Hours · 0 Lab Hours**

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded F, R.

### **URPA5399 – PUBLIC ADMINISTRATION CAPSTONE**

**3 Lecture Hours · 0 Lab Hours**

This integrative applied research course assesses the student's ability to analyze, synthesize, and formulate cogent recommendations to solve a real public sector problem. Students will write the capstone paper using concepts drawn from the MPA core curriculum, their chosen emphasis track, and the student's professional public work experience. Students are required to successfully defend their capstone paper before a Public Administration Forum consisting of SUPA faculty, students, and other interested parties. Prerequisite: completion of all other course work required for the MPA degree, including core courses and emphasis area courses, unless an exception is approved by the MPA advisor.

### **URPA5698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded P/F/R.

### **URPA6301 – THEORETICAL FOUNDATIONS AND PH.D. WORKSHOP**

**3 Lecture Hours · 0 Lab Hours**

Explores the development and function of theoretical models and frameworks. Examines the major theories from the social sciences designed for framing urban planning or administration issues and public policy. Designed to assist doctoral students in preparing their dissertation research. Opportunities to present work in progress, share ideas, and interact with faculty. Prerequisite: CIRP 5346 and either CIRP 5317 or URPA 5342.

### **URPA6305 – SEMINAR IN URBAN POLICY PROCESSES**

**3 Lecture Hours · 0 Lab Hours**

Final course in urban policy field; focus on the political, economic, and sociological institutions in the policy process, including various theoretical approaches, and application of these multidisciplinary perspectives in the analysis of specific policy issues.

### **URPA6306 – SEMINAR IN PUBLIC ADMINISTRATION**

**3 Lecture Hours · 0 Lab Hours**

Final course in the public administration field, focuses on review and integration of the theories and principles of public administration.

### **URPA6310 – MONETARY AND FISCAL POLICY: THE FEDERAL ROLE**

**3 Lecture Hours · 0 Lab Hours**

Examination of the role of the federal government in maintaining economic stability, ensuring full employment and controlling inflation; exploration of liberal interventionist, conservative and radical theories



of state economic management to assess the various policy alternatives and the importance of interest groups.

### **URPA6315 – PUBLIC ADMINISTRATION THEORY**

**3** Lecture Hours · **0** Lab Hours

This course is designed to critically examine public administration theory through the lenses of various governance models that have been proposed beginning with Weber's "ideal"; bureaucratic model through Osborne and Gaebler's market model to Fox and Miller's postmodern discourse model. The course begins by examining each governance model's stated or implied assumptions (about man, government, state, etc.) Second, the course considers the political philosophy and conceptual pillars on which the models are theoretically founded. Finally, the course examines the ideas of what constitutes a state as it might be relevant to a particular model and public administration.

### **URPA6320 – ADVANCED ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

The purpose of this advanced seminar is to examine the role of public agencies as organs of the State. It focuses on federal, urban, and nonprofit organizations. Learning objectives include understanding of interpretive, critical, and postmodern critiques of State's institutions; and application of power, knowledge, and gender lenses to the analysis of organizational practices, culture, and policy actions. Prerequisite: URPA 5320 or URPA 5323.

### **URPA6326 – PUBLIC BUDGETING & FINANCE**

**3** Lecture Hours · **0** Lab Hours

The primary objective of this seminar is to provide students with the theoretical underpinnings of budgeting and financial management in the public sector. Students will engage in in-depth discussions of public budgeting and financial management topics drawn from economics, decision-making models, urban politics, federalism, and others to be able to have a sound understanding of how fiscal decisions affect public administration and policy.

### **URPA6340 – RESEARCH DESIGN**

**3** Lecture Hours · **0** Lab Hours

Advanced course especially for Ph.D. students; covers logic of research design and problems of structure. Emphasis on empirical and quantitative studies.

### **URPA6346 – ADVANCED DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An introduction to selected advanced techniques related to planning analysis. Subjects include advanced applied regression analysis, multivariate logit analysis, and multinomial logistic regression. Applications of projection techniques, land use and transportation models, and methods of regional analysis. Offered as CIRP 6346 and URPA 6346. Credit will be given only once.

### **URPA6349 – DECISION MAKING AND PUBLIC POLICY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

This course explores the theoretical, practical, and topical connections between public policy and public administration through a decision-making lens. The objectives of the course are to enable students to identify, critique, and connect the theoretical and meta-theoretical assumptions of decision-making models to models of public policy analysis and public administration. Course objectives will be pursued through readings, seminar discussions, and research-based assignments that focus on the intersection between decision-making, public policy, and public administration.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Business

### Dean [Rachel Croson](#)

Associate Dean [Gregory Frazier](#)  
Associate Dean [Chandra Subramaniam](#)

Web [www.uta.edu/business/](http://www.uta.edu/business/)  
Email [question@uta.edu](mailto:question@uta.edu)  
Phone 817.272.2881  
Fax 817.272.2073

334 Business Building  
[701 S West Street](#)  
Box 19377, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Accounting

[Sandra Bitenc](#)  
[Billy Brewster](#)  
[Terra Mcghee](#)  
[Stephanie Rasmussen](#)

#### Professor

[Thomas Hall](#)  
[Li-Chin Jennifer Ho](#)  
[Donald McConnell](#)  
[Martin Taylor](#)  
[Jeffrey Tsay](#)

#### Associate Professor

[Bethane Hall](#)  
[Richard Mark](#)  
[Terrance Skantz](#)  
[Chandra Subramaniam](#)

#### Assistant Professor

[Jap Efendi](#)  
[Glyn Winterbotham](#)

#### Assistant Adjunct Professor

[Sandra Henderson](#)

#### Senior Lecturer

[John Repsis](#)

#### Lecturer

[Carly Andrews](#)

#### Business Administration

Assistant Dean

**David Mack**

**Coordinator of International Programs**

**Pui-Ying Chin**

**Director**

**Melanie McGee**

**EMBA Executive Director**

**James Ellis**

**Associate Professor**

**Edmund Prater**

**Economics**

**Professor**

**William Crowder**

**Daniel Himarios**

**Roger Meiners**

**Michael Ward**

**Associate Professor**

**Chi Young Choi**

**Aaron Smallwood**

**Mahmut Yasar**

**Assistant Professor**

**Joshua Price**

**Christy Spivey**

**Visiting Assistant Professor**

**Shalah Mostashari**

**Clinical Professor**

**Jane Himarios**

**Associate Clinical Professor**

**Olga Isengildina**

**Timothy Wunder**

**Finance and Real Estate**

**John Dowdy**

**Professor**

**John David Diltz**

**Associate Professor**

**Darren Hayunga**

**Sanjiv Sabherwal**

**Salil Sarkar**

**Assistant Professor**

**John Adams**

**Necmettin Gormus**

**Arun Narayanasamy**

**Assistant Adjunct Professor**

**Daniel Lowrance**

**Professor Emeritus**

**Vincent Apilado**

**Clinical Professor**

**Fred Forgey**

**Lecturer**

**Lee Schwemer**

**Health Care Administration**

**Director**

**Demetria Wilhite**

**Clinical Professor**  
[Mike West](#)

## **Information Systems & Operations Management**

[Kay yut Chen](#)

**Professor**  
[Revenor Baker](#)  
[Mark Eakin](#)  
[Gregory Frazier](#)  
[Radha Mahapatra](#)  
[M K Raja](#)  
[Craig Slinkman](#)  
[James Teng](#)  
[Mary Whiteside](#)

**Associate Professor**  
[Alan Cannon](#)  
[Sridhar Nerur](#)  
[Edmund Prater](#)  
[Riyaz Sikora](#)  
[Jingguo Wang](#)  
[Jie Zhang](#)

**Senior Lecturer**  
[Carolyn Davis](#)

## **Management**

**Professor**  
[Myrtle Bell](#)  
[Deepak Datta](#)  
[David Gray](#)  
[Jim Quick](#)  
[Abdul Rasheed](#)

**Associate Professor**  
[George Benson](#)  
[Wendy Casper](#)  
[Susanna Khavul](#)  
[James Lavelle](#)  
[Margaret Mcfadyen](#)  
[Jeffrey Mcgee](#)  
[Gary McMahan](#)  
[Liliana Nordtvedt](#)

**Assistant Professor**  
[Marcus Butts](#)  
[Feirong Yuan](#)

**Assistant Clinical Professor**  
[Janice Baldwin](#)  
[Beverly George](#)  
[Jeanne Michalski](#)  
[Terrance Wilensky](#)

**Lecturer**  
[Dennis Veit](#)

## **Marketing**

**Assistant Professor and Graduate Advisor of Marketing Department Ph.D. Program**  
[Ritesh Saini](#)

**Professor**  
[Lawrence Chonko](#)  
[Xueming Luo](#)

**Associate Professor**  
[Elten Briggs](#)  
[Traci Freling](#)  
[Douglas Grisaffe](#)

**Assistant Professor**  
**Narayanan Janakiraman**  
**J Fernando Jaramillo**  
**Adwait Khare**  
**Zhiyong Yang**

**Clinical Professor**  
**Robert Rogers**

**Associate Clinical Professor**  
**Gary Lacefield**

**Assistant Clinical Professor**  
**Michael Richarme**

---

## Graduate Advisors

**Wendy Casper**  
*Management (Business Administration), Ph.D.*

**Carolyn Davis**  
*Information Systems, M.S.*

**John David Diltz**  
*Quantitative Finance, M.S.*

**Fred Forgey**  
*Real Estate, M.S.*

**Gregory Frazier**  
*Accounting, Ph.D.*  
*Business Administration, Ph.D.*  
*Finance (Business Administration), Ph.D.*  
*Information Systems (Business Administration), Ph.D.*  
*Management (Business Administration), Ph.D.*  
*Marketing (Business Administration), Ph.D.*

**Linda Goggans**  
*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**David Mack**  
*Executive M.B.A.*

**Radha Mahapatra**  
*Information Systems (Business Administration), Ph.D.*

**Rebecca Neilson**  
*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**Edmund Prater**  
*Business Administration, Ph.D.*

**John Repsis**  
*Accounting, M.S.*  
*Professional Accounting, M.P.A.*  
*Taxation, M.S.*

**Robert Rogers**  
*Marketing Research, M.S.*

**Ritesh Saini**  
*Marketing (Business Administration), Ph.D.*  
*Marketing Research, M.S.*

**Salil Sarkar**

*Finance (Business Administration), Ph.D.*

**Chandra Subramaniam**

*Accounting, M.S.  
Accounting, Non-Degree Seeking  
Business Administration, M.B.A. (Flexible Format)  
Business Administration, M.B.A. (Professional Cohort)  
Business Administration, M.B.A. Non-Degree Seeking  
Economics, Non-Degree Seeking  
Executive M.B.A.  
Graduate Advanced Studies Business Certificate  
Health Care Administration, Non-Degree Seeking  
Healthcare Administration, M.S.  
Human Resource Management, M.S.  
Human Resource Management, Non-Degree Seeking  
Information Systems, M.S.  
Information Systems, Non-Degree Seeking  
Marketing Research, M.S.  
Marketing Research, Non-Degree Seeking  
Online Business Administration (Online M.B.A.)  
Professional Accounting, M.P.A.  
Professional Accounting, Non-Degree Seeking  
Quantitative Finance, M.S.  
Quantitative Finance, Non-Degree Seeking  
Tax Certificate  
Taxation, M.S.  
Taxation, Non-Degree Seeking*

**Martin Taylor**

*Accounting, Ph.D.*

**Dennis Veit**

*Human Resource Management, M.S.*

**Demetria Wilhite**

*Healthcare Administration, M.S.*

## Programs

Graduate programs include the Ph.D. in Business Administration and the Master of Business Administration at the college level and ten master's level specialized programs in the departments. All programs are listed below.

### Graduate Programs at the College Level

- **Master of Business Administration**
- **Executive Master of Business Administration**
- **Ph.D. in Business Administration**

### Specialized Programs at the Department Level

- **Master of Professional Accounting**
- **Master of Science in Accounting**
- **Master of Science in Taxation**
- **Master of Arts in Economics**
- **Master of Science in Health Care Administration**
- **Master of Science in Information Systems**
- **Master of Science in Marketing Research**
- **Master of Science in Human Resource Management**
- **Master of Science in Quantitative Finance**
- **Master of Science in Real Estate**

## **Mission and Philosophy**

### **History and Overview**

### **Accreditation**

### **Scholastic Activity and Research Interests of the Faculty**

### **Special Programs and Opportunities**

- **The Graduate Advanced Studies Program**
- **Special Students**
- **Dual Degree Programs**
- **Professional Programs in Accounting (PPIA)**
- **Fast Track Programs**
- **Facilitated Admission of Outstanding UT Arlington Undergraduates**
- **Internship Program**
- **Study Abroad/Exchange Programs**

### **Waivers and Transfer Credit**

## **Mission and Philosophy**

The College of Business strives to be a recognized contributor in the field of business education and research. It is our mission to build and maintain a quality educational environment, creating value for our constituencies.

Our achievement-focused programs produce quality graduates at all degree levels. These programs respond to changing needs and opportunities, generate and communicate new knowledge and ideas to benefit the scholarly, public and private sectors, and provide a wide range of intellectual and professional services locally, regionally, nationally and internationally.

Our philosophy can be summarized in the following objectives:

1. To discover and disseminate knowledge that, through its relevance and rigor, benefits our students, practitioners and other constituencies.
2. To continue to develop and provide instructional programs that meet the needs of our students: part-time, full-time, employed and international.
3. To maintain a rigorous and effective client-focused environment that capitalizes on our urban setting.
4. To continually improve all our academic programs, with special emphasis on master's programs, to effectively address the diversified needs of the Dallas/Fort Worth Metroplex.
5. To further our community interaction by offering off-campus courses, distance education and professional development seminars.
6. To enhance the visibility of the college and improve its financial strength through increased external funding.
7. To provide advisory services to academic, professional and other organizations.

## **History and Overview**

Since its origination in 1959, the College of Business has been one of the fastest growing business schools in the nation. This growth has mirrored the dynamic growth of the D/FW Metroplex as the college has worked hard to provide high quality educational programs. The college is organized into six academic departments: Accounting, Economics, Finance, Information Systems and Operations Management, Management, and Marketing. A total of 103 full-time equivalent faculty organize and conduct classes, including 88 with doctoral degrees from some of the top schools in

the nation. The college currently enrolls 5,500 students, of whom more than 1,500 are enrolled in 12 graduate business programs.

## Accreditation

The University of Texas at Arlington and its College of Business is fully accredited in business and accounting at both the undergraduate and graduate levels by the AACSB-International.

## Scholastic Activity and Research Interests of the Faculty

Many of the faculty have professional certifications and years of experience in the business world, including serving as consultants, expert witnesses, and in other professional capacities. They actively engage in research that enables them to be at the forefront of the discovery of new knowledge in their fields. All these activities allow them to bring professional experiences and new ideas into the classroom.

## Special Programs and Opportunities

### The Graduate Advanced Studies Program

This is a certificate program open to those holding a graduate degree in a business field. Applicants must meet normal MBA admissions requirements and complete 12-21 semester hours of graduate courses in a specified area. This is an excellent way for business professionals to update their business skills in advanced areas.

### Special Students

An applicant can gain admission as a special student in the College of Business, but he/she must meet the same admission requirements as those unconditionally admitted. In order to take masters and/or doctoral level courses in the College of Business, a student must be admitted as a graduate student.

### Dual Degree Programs

The college offers a rich array of dual degree opportunities that build synergistic skill sets that prepare students for more advanced career opportunities. While most dual degree programs include two graduate business degrees, the Professional Management Option in the MBA program allows professionals with undergraduate degrees in engineering, architecture, nursing, education, and urban affairs to complete a master's degree in that field along with the MBA. Dual degree programs allow students to earn two degrees with a substantial reduction in course requirements. The MBA Program also offers a special dual degree with Thunderbird School of Global Management.

### Professional Programs in Accounting (PPIA)

The PPIA program is designed to meet the needs of exceptional students. The Professional Program in Accounting allows a student to earn both a bachelor of business administration and master of science in accounting or taxation. Once accepted into this integrated program, students may enroll in graduate courses prior to completing their undergraduate degree. The program may be completed in approximately one less semester than required to earn separate bachelor's and master's degrees.

### Fast Track Programs

The Fast Track Program enables outstanding undergraduate UT Arlington Business students to satisfy degree requirements that will lead to a master's degree in Business Administration (MBA), Human Resource Management, Real Estate, Information Systems, or Economics while completing



their undergraduate studies. If admitted, students will be allowed to take select graduate courses that may be used to satisfy both bachelor's and master's degree requirements. Admitted students will be allowed to complete 6 to 9 hours of selected graduate coursework as an undergraduate student. A GPA of 3.0 on the graduate work is required to continue taking graduate courses. Any Fast Track student who completes the 6 to 9 hours of graduate coursework with grades of B or better will be automatically admitted to Graduate School. The student would then be awarded his or her bachelor's degree. The student will not be required to take the GMAT, complete the Graduate School Application, and will have the related application fees waived.

### Facilitated Admission of Outstanding UT Arlington Undergraduates

The following programs participate in the Facilitated Admissions program: Master of Business Administration, Master of Arts in Economics, Master of Science in Human Resource Management, Master of Science in Information Systems, Master of Science in Marketing Research and Master of Science in Real Estate. Students pursuing Facilitated Admission must demonstrate quantitative proficiency. For details on admission into the program please refer to UT Arlington's Graduate Catalog Special Admissions Programs under Admission Requirements and Procedures.

### Internship Program

Graduate students are encouraged to participate in internships to supplement and complement classroom education by providing valuable experience and training in their chosen area of expertise. Internships allow students to meet and interact with professionals in the work setting, identify and develop critical professional skills, clarify their own career goals and interests, and develop important contacts for future development. This internship program is open to all graduate students who have completed nine hours of graduate courses, are in good academic standing (GPA => 3.0), and have secured their advisor's approval for up to three hours of graduate credit. Interested students should ask for a fact sheet and an application in the Graduate Business Services Office. After gaining the advisor's approval, students will complete an application and meet with the appropriate departmental internship coordinator. Once an internship is obtained, the coordinator will monitor progress and assign a Pass/Fail grade.

### Study Abroad/Exchange Programs

The leaders for the 21st century will be deeply involved in business opportunities around the world. Study abroad/exchange programs are available to help students prepare in both curricular and extracurricular ways for these future international leadership roles. Students wishing to study abroad are encouraged to review the many opportunities contained in the Study Abroad Library in the International Office. Once a specific program is identified, students discuss the available courses with their advisor to ensure they meet degree requirements. Depending on their terms, study abroad/exchange programs may allow students to complete courses as resident credit or as transfer credit.

### Waivers and Transfer Credit

There are three types of required courses: deficiency, core and advanced. Applicants may have both deficiency and core courses waived without the requirement for a substitute course if they have completed a similar course, during the last 10 years, at a recognized college or university and received a "B" or better grade (3.0) in that course.\* Extensions to this 10-year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience.

A maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by the program advisor. Transfer of graduate courses from other universities will be considered on a case-by-case basis. All work submitted for transfer credit must have been completed no more than six years before completion of a graduate program at the University of Texas at Arlington.

\* Note: The University of Texas at Austin offer Business Foundations Programs (BFP) for non-

business majors that provide solid foundations in basic business concepts. BFP courses and courses from equivalent programs for non-business majors at other colleges/universities may not be used for course waiver credit.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
    - Curriculum and Instruction
    - Educational Leadership and Policy Studies
    - Kinesiology
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Education and Health Professions

### Dean [Jeanne Gerlach](#)

Associate Dean [Carrie Ausbrooks](#)

Associate Dean [Ann Cavallo](#)

Associate Dean [Christopher Ray](#)

Web [www.uta.edu/coehp/](http://www.uta.edu/coehp/)

Email [education@uta.edu](mailto:education@uta.edu)

Phone 817.272.2591

Fax 817.272.2530

500 Hammond Hall  
[701 Planetarium Pl](#)  
Box 19227, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Educational Curriculum & Instruction

[Joyce Myers](#)

#### Professor

[Ann Cavallo](#)

[Mary Crow](#)

[Christopher Kribs](#)

[Andrew Milson](#)

[Luis Rosado](#)

[Marc Schwartz](#)

[John Smith](#)

#### Associate Professor

[Joohee Lee](#)

[Jon Leffingwell](#)

[Jodi Tommerdahl](#)

[Jiyoon Yoon](#)

#### Assistant Professor

[Carla Amaro-Jimenez](#)

[Amber Brown](#)

[Holly Hungerford-Kresser](#)

[Evguenia Malaia](#)

[Leisa Martin](#)

[Mohan Pant](#)

[Kathryn Pole](#)

[Peggy Semingson](#)

#### Educational Leadership and Policy Studies

[Taryn Allen](#)

Casey Brown  
Bradley Davis  
Daniel B Saunders  
Maria Trache  
Yi Zhang

**Professor**

Jeanne Gerlach

**Associate Professor**

Carrie Ausbrooks  
James Hardy  
Rhonda McClellan  
Lewis Wasserman

**Assistant Professor**

Ifeoma Amah  
Barbara Tobolowsky

**Assistant Clinical Professor**

Ernest Johnson

**Senior Lecturer**

Kent Gardner

**Lecturer**

Harold Smith

**Special Assistant**

Ronald Caloss

**Kinesiology**

Robert Brothers  
Paul Fadel  
Mark Haykowsky  
Michael Nelson  
Zui Pan

**Professor**

John Buckwalter  
A Louise Fincher  
Barry McKeown  
Mark Ricard

**Associate Professor**

Paul McDonough  
Larry Nelson  
Cynthia Trowbridge  
Judy Wilson

**Assistant Professor**

Priscila Cacola  
Jean Hargreaves  
David Keller  
Rhonda Prisby  
Christopher Ray  
Jake Resch

**Assistant Clinical Professor**

Paul Krawietz

---

**Graduate Advisors**

**Robert Brothers**

*Athletic Training, M.S. Non Thesis*  
*Exercise Science, M.S.*  
*Exercise Science, Non-Degree Seeking*  
*Kinesiology BS to PHD-DB*  
*Kinesiology-PhD*

**Casey Brown**

*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Mary Crow**

*School Counselor Certificate*

**Caitlin Guerrero**

*Ed. Curriculum & Instruction, Special Student*

*Ed. Curriculum & Instruction, M.Ed.*

*Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics*

*Ed. Curriculum & Instruction, M.Ed. Non Thesis Science*

*Ed. Curriculum & Instruction, M.Ed. Writing Focus*

**Ernest Johnson**

*Ed. Leadership & Policy Studies, M.Ed.*

**David Keller**

*Athletic Training, M.S. Non Thesis*

*Exercise Science, M.S.*

*Exercise Science, Non-Degree Seeking*

**Paul Krawietz**

*Athletic Training, M.S. Non Thesis*

**Teaira Little**

*Ed. Curriculum & Instruction, M.Ed.*

**Joyce Myers**

*Ed. Curriculum & Instruction, M.Ed.*

**Mark Ricard**

*Exercise Science, M.S.*

**Marc Schwartz**

*Mind, Brain and Education, M.Ed. Non Thesis*

**Barbara Tobolowsky**

*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Mission**

**History and Overview**

**Scholastic Activity and Research Interests of the Faculty**

- **Department of Curriculum and Instruction**
- **Department of Educational Leadership and Policy Studies**
- **Department of Kinesiology**

**Special Programs and Opportunities**

**Education Career Services**

- **Online Master's Degrees**
- **Certification and Advising Services**
- **Recommendation to the State Board for Educator Certification**
- **Office of Professional Development**
- **Office of Development and Leadership Gifts**
- **National Accreditation**

**College of Education and Health Professions Centers**

- **Southwest Center for Mind, Brain and Education**
- **Center for Educational Technology**
- **Center for K-16 Educational Policy and Research**
- **Center for Healthy Living and Longevity**

- [Center for Bilingual Education](#)
- [Center for Social Studies Education](#)
- [UTeach Arlington and the Center for Science Education](#)
- [School Counseling Certification](#)

#### Degrees and Certifications

- [Degrees](#)
- [Online Academic Partnership Degree Programs](#)
- [Educator Preparation Programs](#)
- [Supplemental Certification](#)

### Mission

The mission of the College of Education and Health Professions (COEHP) is to promote a collaborative culture of excellence in research, teaching, and service. The College is committed to fostering critical, creative thinkers prepared to engage meaningfully in a dynamic society.

### History and Overview

In 1979, The Center for Professional Teacher Education, now the College of Education and Health Professions, began offering coursework at the graduate level. In the late 1980s, a Master of Education and Teaching degree (M.Ed.T.) was approved. This degree served teachers who wanted the opportunity to extend their knowledge base in education and related fields with graduate coursework. The degree enabled students to combine graduate coursework in education with study in an academic discipline related to their teaching field or specialization. Its success led to the expansion of education offerings to include additional certifications in Reading and Educational Administration as well as supplemental certification in Bilingual Education (BIL), English as a Second Language (ESL), and Gifted and Talented (G/T).

As one of only a few Texas universities authorized to offer post baccalaureate teacher certification at the graduate level, the College of Education and Health Professions began offering graduate level teacher certification with an M.Ed.T. in the summer of 1998. With expansion of program offerings, the M.Ed.T. no longer met the needs of all degree-seeking students. In 1999, the College of Education and Health Professions added two new master's degree programs, a Master of Education (M.Ed.) in Educational Leadership and Policy Studies and a Master of Education (M.Ed.) in Curriculum and Instruction.

The M.Ed.T. is now offered exclusively to students seeking teacher certification (early childhood - grade 6, middle level, secondary and all level) at the graduate level. The M.Ed. in Educational Leadership and Policy Studies is available to students pursuing principal certification, principal certification emphasizing dual language, as well as higher education administration. The M.Ed. in Curriculum and Instruction (C&I) is for educators wanting to extend their knowledge in education and related fields, including science and mathematics. The M.Ed. in C&I also serves students wanting to earn a master's degree along with Reading Specialist Certificate and the Master Reading Teacher Certificate. The Department also offers the M.Ed. in C&I with science, mathematics, or social studies education as specialization areas. Supplemental certification in Bilingual Education and English as a Second Language may also be added to the M.Ed. in C&I. Superintendent certification is also available.

The Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies was first offered in the summer of 2007. With advancements in technology, many graduate courses are available via the Internet with additional courses being added each semester. The College of Education and Health Professions has an enrollment of more than 1,000 students with approximately 600 students pursuing graduate level degrees certificates.

## Scholarly Activity and Research Interests of the Faculty

College of Education and Health Professions faculty members strive to model the characteristics of the most proficient professional educators for all students aspiring to membership in the education and exercise, sport and health studies professions. Faculty members in the College of Education and Health Professions have consistently achieved recognition for their excellence in teaching in the University and beyond. They have received numerous honors, including the University of Texas System Board of Regents Outstanding Teaching Award, UT System Chancellor's Council Teaching Award, election to UT Arlington's Academy of Distinguished Teachers, and the Piper Professor award at the state level. They have also served as guest lecturers at universities across the country. In addition, numerous faculty members have received recognition for their scholarly publications and professional contributions.

The College of Education and Health Professions also values faculty scholarship for its potential impact on the increased effectiveness of teaching and learning in professional education preparation programs and in public and private school settings. Scholarly and research activities cover a variety of areas represented by the expertise of each individual faculty member.

Evidence of service to the College of Education and Health Professions, the University, the community and the practicing profession is also expected of the faculty. This includes service to local constituencies such as school districts, education service centers, parent-teacher groups, professional associations, and/or other agencies and organizations dedicated to the improvement of teaching and learning, as well as involvement in outreach programs, community events, civic leadership, and the promotion of alumni support and involvement. The extensive service activities of faculty members in the various departments have garnered additional awards from the University, the community, the state, and a variety of professional organizations.

### Department of Curriculum and Instruction

Curriculum & Instruction faculty scholarship focuses on a wide range of topics associated with teaching and learning. These include improving the effectiveness of instruction in various content areas; studying family support for learning; addressing issues associated with social sciences; using technology to enhance distance education instruction and student mentoring; online supplemental student teacher supervision; the effectiveness of service learning; the connections among brain physiology, cognition, and education; and effective practices in school counselor preparation. Funded projects include providing UT Arlington students as mentors to high school students for college success, math and science cohorts and camps, improving sustainability in post-secondary education, including college success strategies in educator preparation coursework. For more information about programs in Curriculum and Instruction in the College of Education and Health Professions, go to <http://www.uta.edu/coehp/curricandinstruct/>

### Department of Educational Leadership and Policy Studies

In the area of educational administration, research activities and publications have focused on school leadership trends, developing collaborations among the University, public, private and charter schools, fostering creativity in learning organizations, and studying school legal, policy, governance, and finance issues. Current focus is on transition research relative to students, faculty, and leadership across PK-16 school settings, between high school and beyond, and transitions between leadership levels. Other research examines how the media portrays educators and the education profession. See <http://www.uta.edu/coehp/educleadership/> for additional information about programs in Educational Leadership and Policy Studies in the College of Education and Health Professions.

### Department of Kinesiology

Faculty research interests and publications include dynamic regulation of blood pressure, pulmonary responses to exercise, postural control in elderly, the effects of therapeutic modalities on the treatment of athletic injuries, the effects of hyperbaric oxygen on the treatment of diseases, applied biomechanics, assessment and management of sports-related concussions, motor development, adapted sports, and sports pedagogy. For more information on Kinesiology



programs in the College of Education and Health Professions, see <http://www.uta.edu/coehp/kinesiology/>

## Special Programs and Opportunities

The College of Education and Health Professions offers a variety of special opportunities for learning and professional growth for graduate students. A variety of clinical field experiences, visiting authors and experts, membership in professional organizations, and specialized library resources are some of the special programs and opportunities that enrich students.

- Several graduate courses offer links to field experiences that greatly enrich the course content. This includes regular observation and participation in PK-12 classrooms and individualized administrative practicums for students seeking Principal Certification, and summer literacy clinics that bring children to campus to work with graduate students earning the Reading Specialist Certification.
- Graduate courses routinely host authors and experts in various areas to share their experiences and insights. Guests include outstanding professors from other area universities, award-winning educators, and others.
- Student organizations offer graduate students leadership opportunities.
- Student awards, scholarships, and graduate assistantships are available to graduate students who qualify.
- To support College of Education and Health Professions programs, the Library houses a Curriculum Collection and a Juvenile Collection for student use in conjunction with their education coursework.
- The Department of Kinesiology presents two lecture series each semester: the Anderson Sports Performance Lecture Series and the UTA/American College of Sports Medicine Lecture Series.
- The College of Education and Health Professions offers creative and flexible scheduling of graduate coursework to meet the needs of professional educators, including Saturday, weekend, interim and evening classes year-round.
- Distance learning via the Internet is available for an increasing number of courses.

## Education Career Services

[www.uta.edu/coehp/career](http://www.uta.edu/coehp/career), 817.272.2831, or [education.careerservices@uta.edu](mailto:education.careerservices@uta.edu).

The Education Career Services office assists education students who are seeking positions as teachers and administrators. Positive collaborative relationships with partners in the various school districts are important to the College, the districts and students. The annual College of Education and Health Professions Career Day is held in March and typically hosts over 50 school districts. Employers can list position vacancies as well as district job fairs with Education Career Services. In addition, Education Career Services offers career planning seminars, which include guidance on resume writing and developing strong interviewing and networking skills. The ultimate goal is to prepare UT Arlington students for the next step in their career development as professional educators and administrators.

## Online Master's Degrees

The College of Education and Health Professions offers graduate students convenience and quality with a master's degree in Curriculum and Instruction available entirely via the Internet. This program option includes cutting-edge graduate courses that can also lead to three Texas professional credentials: Reading Specialist, Master Reading Teacher Certifications and English-as-a-Second Language Certification. Students from as far away as New York, Georgia, and Nebraska as well as Americans teaching abroad have enrolled in online courses through this award-winning program. Contact: Dr. Joyce Myers, [rjem@uta.edu](mailto:rjem@uta.edu).



In addition, the College of Education and Health Professions offers graduate degree programs that are fully online through Academic Partnerships. These graduate programs lead to Master of Education degrees in Literacy Studies, Science Education, Mathematics Education, and Educational Leadership and Policy Studies, as well as a Superintendent Certificate. For more information on our online Academic Partnership programs, go to <http://stateu.com/uta/SearchPrograms.aspx?StudyArea=60>

## Certification and Advising Services

**Patty Motlagh**, Assistant Dean for Student Affairs

Certification and Advising Services helps students succeed by providing the information and support services needed to achieve their academic and career goals. The academic advisors are available to assist students in various stages of preparing for or furthering their careers as educators and school administrators.

Certification and Advising Services also provides information and advising regarding admission requirements and degree plan options, as well as the academic content areas, field-based experiences, state examinations, and application procedures needed to obtain teacher, principal, superintendent, and special program certification in Texas.

To schedule an advising appointment: 817.272.2956

For advising questions: [coehpadvising@uta.edu](mailto:coehpadvising@uta.edu)

## Recommendation to the State Board for Educator Certification

To be eligible for certification under all programs, a candidate must meet specific criteria set by the College of Education and Health Professions, the University, and the Texas Education Agency/State Board for Educator Certification. To be recommended to the Texas Education Agency/State Board for Educator Certification for initial teacher certification, a teacher candidate must have successfully completed the following:

Effective fall 2007, students must pass all appropriate state exams and apply for appropriate state certifications with the State Board for Educator Certification/Texas Education Agency within six months of the completion of their residency/practicum/program. If a student allows the six-month period to go by without passing all state exams and applying for certification, additional coursework and/or state exams will be required for recommendation for certification. Additional coursework will be determined by the appropriate Program Director in consultation with the faculty.

### Teacher Certification

Before you apply for certification as a teacher, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Conferred Bachelor's Degree (or higher);
2. Completed all courses on the certification plan;
3. Completed all appropriate TExES exams;
4. Completed Student Teaching or one year of approved internship on a probationary certificate.

If you do NOT meet these requirements, please wait to apply for certification until you do. If you do apply before these requirements are completed, your application will be automatically deleted. Apply at the State Board for Educator Certification (SBEC).

### Principal or Superintendent

Before you apply for certification as a Principal or Superintendent, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Conferred Master's Degree (or higher);

2. Completed all courses on the certification plan;
3. Completed all appropriate TExES exams;
4. Valid teaching certificate;
5. Two years of classroom teaching experience.

If you are a candidate who is applying for Principal or Superintendent certification, you must request that your school district mail a copy of your teacher service record indicating you taught for at least two years. Please request that your school district mail your teacher service record to the Assistant Dean for Student Affairs in the College of Education and Health Professions at UT Arlington. Then, apply to the State Board for Educator Certification (SBEC).

### **Master Reading Teacher**

If you are applying as a Master Reading Teacher, and are already certified as a Reading Specialist, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Bachelor's Degree (or higher);
2. Three years of teaching experience (service record required);
3. Completed course work.

If you are applying as a Master Reading Teacher, and are NOT already certified as a Reading Specialist, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Bachelor's Degree (or higher);
2. Completed course work;
3. Passed Master Reading Teacher TExES.

If you do NOT meet these requirements, please wait to apply for certification until you do. If you do not apply before these requirements are completed, your application will be automatically deleted.

If you are a candidate who is applying as a Master Reading Teacher, you must request your school district mail a copy of your teacher service record indicating you taught for three years. Please request your school district mail your teacher service record to the Assistant Dean for Student Affairs in the College of Education and Health Professions at UT Arlington. Then, apply to the State Board for Educator Certification (SBEC).

### **Office of Professional Development**

The Office of Professional Development supports partnerships between the College of Education and Health Professions and PK-16 schools and their communities. Partner public school districts and the College of Education and Health Professions collaborate to provide high-quality learning environments for future teachers. Prospective teacher candidates apply their knowledge of content and pedagogy during both a Field-Based Experience semester and a Student Teaching semester arranged through the Office of Professional Development. The Field-Based Experience semester gives teacher education candidates the opportunity to observe and interact with diverse student populations in a variety of formal and informal educational settings at partnership schools. During the Student Teaching semester, these pre-service teachers refine their teaching skills by working directly with students in classrooms, at designated public schools in the candidate's area of certification, guided by a cooperating mentor teacher and supervising university faculty. The Office of Professional Development coordinates the annual College of Education and Health Professions Career Day held in March and typically hosts over 50 school districts. Contact: Dr. Denise Collins, Director, Office of Professional Development, 817.272.7448, [dacollins@uta.edu](mailto:dacollins@uta.edu).

### **Office of Development and Leadership Gifts**

The Office of Development and Leadership Gifts plans, manages and directs the College of Education and Health Profession's comprehensive development program. This entails working with alumni, corporations, foundations, and friends to raise private gifts that will support and

enhance the College's strategic priorities for academic programs, student services, research efforts and outreach activities. The office works with the College of Education and Health Professions faculty and administration in the identification, cultivation, solicitation and stewardship of donors and prospects. Contact: Cathleen Anderson, Director of Development, 817.272.7451, [cfanderson@uta.edu](mailto:cfanderson@uta.edu).

### National Accreditation

The Office of the Associate Dean for Assessment provides leadership, direction, and oversight for the assessment and continuous improvement processes for national accreditation in the College of Education and Health Professions, including unit effectiveness and academic affairs as they relate to assessment and accreditation requirements. Contact: Dr. Carrie Y. Barron Ausbrooks, Associate Dean for Assessment, 871.272.5310, [causbrooks@uta.edu](mailto:causbrooks@uta.edu).

## Centers and Programs in the College of Education and Health Professions

### Southwest Center for Mind, Brain and Education

The mission of the Southwest Center for Mind, Brain and Education is to facilitate collaborative relationships among educators, policy makers, and researchers in the cognitive and developmental sciences. The Center seeks to identify and support promising research agendas at the intersection of mind, brain and education. Researchers, educators and policy makers will find a forum where ideas are welcomed and at the same time critically and rigorously examined. The Center invites individuals interested in how advances in neuroscience, genetics, and cognitive science can inform educational practice and leadership. The Center also seeks to advance educational research by recognizing, and profiting from, the role that practical experience plays in defining promising research directions. Contact: Dr. Marc Schwartz, Director, 817.272.5641, [schwarma@uta.edu](mailto:schwarma@uta.edu).

### Center for Educational Technology

The College of Education and Health Professions and UT Arlington are committed to ensuring that all learners have equitable opportunities to employ a variety of technological tools to enhance the learning process. Educational technology provides the opportunity to offer education anywhere, any time for everyone. The Center for Educational Technology addresses statewide technology initiatives for teachers and students in the State of Texas. The Center supports the faculty and students in their efforts to successfully use and understand the many new technology tools and strategies. The Center for Educational Technology also assists faculty in the development and implementation of interactive technologies, which increases the effectiveness of their pedagogy. Contact: Dr. Dana Arrowood, 817.272.7449, [arrowood@uta.edu](mailto:arrowood@uta.edu).

### Center for K-16 Education Policy and Research

The mission of the Center for K-16 Education Policy and Research, founded in the Department of Educational Leadership and Policy Studies at UT Arlington, is to produce and disseminate cutting-edge research on K-16 education and to inform education policy and practice. We are guided by the belief that educational leadership and opportunity are strengthened by research that takes systemic, integrated approaches to understanding persistent problems across the educational continuum. Contact: Dr. Daniel Saunders at [saunders@uta.edu](mailto:saunders@uta.edu).

### Center for Healthy Living and Longevity

The Department of Kinesiology's Center for Healthy Living and Longevity provides a multidisciplinary approach to improving health and functioning throughout the lifespan. Research and education initiatives focus on keeping senior citizens active, decreasing the incidence of sedentary-related diseases (diabetes, cardiovascular disease, osteoporosis, obesity, etc.), and the assessment and management of concussions. Contact: Dr. Christopher Ray, Director, 817.272.0082, [chrisray@uta.edu](mailto:chrisray@uta.edu).

## Center for Bilingual Education

Created in response to the growing number of English language learners, the Center for Bilingual Education strives to increase the number of qualified bilingual and ESL teachers in Texas. The Center prepares pre-service and in-service teachers to work with linguistically and culturally diverse student populations. The Center also provides technical support to school districts in their implementation of dual language, bilingual and ESL education programs. Additionally, the Center offers preparation for the certification examinations in the areas of the EC-6 Bilingual Generalist and the Bilingual Target Language Proficiency Test--Spanish. For information, contact Dr. Luis Rosado, Director, 817.272.7567, [rosado@uta.edu](mailto:rosado@uta.edu).

## Center for Social Studies Education

The goals of the Center for Social Studies Education are to advance social studies education research, improve social studies teacher preparation, and provide outreach to social studies learners and their teachers. The Center includes faculty from the College of Education and Health Professions, the College of Liberal Arts, and the College of Business. The Center faculty coordinate social studies teacher certification at UT Arlington, establish targeted partnerships to advance educational opportunities and excellence in social studies for under-represented and under-served populations, and facilitate collaborative relationships across colleges and universities for the advancement of P-16 teaching and learning in disciplines such as history, geography, economics, and political science. Contact: Mary Curtis, Director, [mary.curtis@uta.edu](mailto:mary.curtis@uta.edu) or <http://www.uta.edu/socialstudies>.

## UTeach Arlington and the Center for Science Education

UTeach Arlington is a science and mathematics secondary teacher preparation program jointly offered by the College of Science and the College of Education and Health Professions. It features early field experiences in PK-12 schools, guidance from Master Teachers, and scholarship and internship opportunities. UTeach courses will be added gradually over the next few years; therefore, the program is currently limited to students who will be graduating in spring 2014 or later. Students who are interested in mathematics or science education, but will be graduating prior to spring 2014, should pursue the existing secondary certification program offered through the **College of Education and Health Professions**. Secondary certifications include Composite Science, offered in the Departments of Biology and Earth and Environmental Sciences; Life Science, offered in the Department of Biology; Physical Science, offered in the Departments of Physics and Chemistry and Biochemistry; Chemistry, offered in the Department of Chemistry and Biochemistry; Physics/Mathematics, offered in the Department of Physics; and Mathematics, offered in the Department of Mathematics. Descriptions of these programs are provided in each department's section of this catalog. For information, contact: Dr. Ann Cavallo, Co-director, College of Education and Health Professions, [cavallo@uta.edu](mailto:cavallo@uta.edu); Dr. Greg Hale, Co-director, College of Science, [greghale@uta.edu](mailto:greghale@uta.edu); Dr. Ramon Lopez, Co-director, College of Science, [relopez@uta.edu](mailto:relopez@uta.edu); Erin Gonzales, UTeach Arlington Academic Advisor, 817.272.0784, [egonzales@uta.edu](mailto:egonzales@uta.edu); or visit <http://www.uta.edu/cos/uteach/index.html>.

## School Counseling Certification

The Counseling Certification Program at UT Arlington is designed for teachers who hold a master's degree in an Education-related area and who have at least two years of teaching experience. At the end of the required 15 hours of graduate coursework, successful candidates must pass the TExES certification examination for School Counselors. This will qualify them to hold positions as school counselors at any level (Pre-K through 12) in Texas schools. The six-course, 15-hour counseling program will be taught on campus during after-school hours. A six-hour supervised counseling practicum will take place in schools or on campus with school-age children. The practicum hours must be successfully accomplished in order for the candidate to be approved by UT Arlington to take the state examination. A school counselor needs to acquire the academic knowledge and skills necessary to do the job but must also have a personality, or disposition, appropriate for the helping professions. Candidates will be expected to complete the supervised practicum that will allow them the opportunity to demonstrate they can work successfully with

students and others in the educational environment. Admission requirements to the program include a completed master's degree from an accredited university in any approved area; transcripts of both undergraduate and graduate coursework; a minimum of two completed years of successful teaching either in public or private schools in any grade, K-12; an interview; and letters of recommendation from professionals. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) or contact program director Dr. Mary Lynn Crow ([mlcrow@uta.edu](mailto:mlcrow@uta.edu)) for additional information about the program and an application.

## Degrees and Certifications

Graduate work in the College of Education and Health Professions at UT Arlington may lead to the following degrees and certifications:

### Degrees

- Master of Education in Teaching (M.Ed.T.) – Early Childhood - through Grade 6
- Master of Education in Teaching (M.Ed.T.) – Middle Level
- Master of Education in Teaching (M.Ed.T.) – Secondary Level
- Master of Education (M.Ed.) in Curriculum and Instruction
- Master of Education (M.Ed.) in Curriculum and Instruction – Literacy Studies
- Master of Education (M.Ed.) in Curriculum and Instruction – Reading Specialist
- Master of Education (M.Ed.) in Curriculum and Instruction – Science Education
- Master of Education (M.Ed.) in Curriculum and Instruction – Mathematics Education
- Master of Education (M.Ed.) in Curriculum and Instruction – Social Studies Education
- Master of Education (M.Ed.) in Mind, Brain and Education
- Master of Education (M.Ed.) in Educational Leadership and Policy Studies
- Master of Science (M.S.) in Exercise Science
- Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies

### Online Academic Partnership Degree Programs

- Master of Education (M.Ed.) in Curriculum and Instruction – Literacy Studies (AP)
- Master of Education (M.Ed.) in Curriculum and Instruction – Science Education (AP)
- Master of Education (M.Ed.) in Curriculum and Instruction – Mathematics Education (AP)
- Master of Education (M.Ed.) in Educational Leadership and Policy Studies (AP)

### Educator Preparation Programs

- Early Childhood-Grade 6 Teacher
- Early Childhood-Grade 6 Bilingual Teacher
- Middle Level Teacher (Grades 4-8)
- Secondary Teacher (Grades 8-12)
- Reading Specialist
- Master Reading Teacher
- Principal
- Superintendent (offered online through Academic Partnerships)

### Supplemental Certification

- Bilingual Education
- English as a Second Language
- School Counseling

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## College of Engineering

**Dean Khosrow Behbehani**

**Dean Duane Dimos**

**Associate Dean Pranesh Aswath**

**Associate Dean Lynn Peterson**

Web [www.uta.edu/engineering/](http://www.uta.edu/engineering/)

Email [info@engineering.uta.edu](mailto:info@engineering.uta.edu)

Phone 817.272.2571

Fax 817.272.2548

634 Nedderman Hall

**416 S Yates St**

Box 19019, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Bioengineering

[Christopher Chen](#)

[Michael Cho](#)

[Yi Hong](#)

[Justyn Jaworski](#)

[Juhyun Lee](#)

[Jun Liao](#)

#### Professor

[Khosrow Behbehani](#)

[Cheng-Jen Chuong](#)

[Hanli Liu](#)

[Liping Tang](#)

#### Associate Professor

[Digant Dave](#)

[Kytai Nguyen](#)

[Mario Romero-Ortega](#)

#### Assistant Professor

[Georgios Alexandrakis](#)

[Young-Tae Kim](#)

[Baohong Yuan](#)

#### Adjunct Professor

[Robert Eberhart](#)

#### Civil Engineering

[Zheng Fang](#)

[S Ham](#)

[Seyed Mohsen Shahandashti](#)

[Yvette Weatherton](#)

**Professor and Chair**  
Seyedali Abolmaali

**Professor of Practice**  
Mohammad Najafi

**Professor**  
Siamak Ardekani  
Md Hossain  
Laureano Hoyos  
Anand Puppala  
James Williams  
Nur Yazdani

**Associate Professor**  
Shih-Ho Chao  
Andrew Kruzic  
Stephen Mattingly  
Stefan Romanoschi  
Melanie Sattler  
Dong-Jun Seo

**Assistant Professor**  
Hyeok Choi  
Xinbao Yu

**Senior Lecturer**  
Mostafa Ghandehari  
Srinivas Prabakar  
Seyed Mohammad Razavi

### **Computer Science and Engineering**

Sajib Datta  
Hong Jiang  
Song Jiang  
Taylor Johnson  
Jiang Ming  
Jia Rao

**Professor**  
Ishfaq Ahmad  
Upendranath Chakravarthy  
Gautam Das  
Sajal Das  
Chris Ding  
Ramez Elmasri  
Farhad Kamangar  
Mohan Kumar  
David Kung  
Fillia Makedon  
Lynn Peterson  
Roger Walker  
Gergely Zaruba

**Associate Professor**  
Vassilis Athitsos  
Hao Che  
Leonidas Fegaras  
Jean Gao  
Heng Huang  
Manfred Huber  
Yu Lei  
Chengkai Li  
Donggang Liu  
Yonghe Liu  
Bob Weems  
Matthew Wright

**Assistant Professor**  
Christoph Csallner  
Junzhou Huang



[Gian-Luca Mariottini](#)

**Senior Lecturer**

[Darin Brezeale](#)  
[Bahram Khalili](#)  
[David Levine](#)  
[James Mike O'Dell](#)

**Electrical Engineering**

[R Stephen Gibbs](#)  
[Henry Kearny](#)  
[Ramtin Madani](#)  
[Yuze Sun](#)  
[Yan Wan](#)

**Professor**

[Kambiz Alavi](#)  
[Jonathan Bredow](#)  
[Donald Butler](#)  
[Ronald Carter](#)  
[Zeynep Celik-Butler](#)  
[Jung-Chih Chiao](#)  
[Venkat Devarajan](#)  
[George V Kondraske](#)  
[Wei-Jen Lee](#)  
[Frank L Lewis](#)  
[Qilian Liang](#)  
[Robert Magnusson](#)  
[Michael T Manry](#)  
[Kamisetty R Rao](#)  
[Harry Stephanou](#)

**Associate Professor**

[W Alan Davis](#)  
[William E Dillon](#)  
[Sungyong Jung](#)  
[Soontorn Orintara](#)  
[Dan Popa](#)  
[Saibun Tjuatja](#)  
[Michael Vasilyev](#)  
[Weidong Zhou](#)

**Assistant Professor**

[Ali Davoudi](#)  
[Samir Iqbal](#)  
[Ioannis Schizas](#)  
[David A Wetz](#)

**Senior Lecturer**

[Rasool Kenarangui](#)  
[Howard Russell](#)

**Industrial and Manufacturing Systems Engineering**

[Paul Componation](#)  
[Shouyi Wang](#)

**Professor**

[Victoria Chen](#)  
[Herbert Corley](#)  
[Donald Liles](#)  
[John Priest](#)

**Associate Professor**

[Brian Huff](#)  
[Sheik Imrhan](#)  
[Erick Jones](#)  
[Jamie Rogers](#)  
[Jay Rosenberger](#)

**Assistant Professor**

[Susan Ferreira](#)

Li Zeng

**Senior Lecturer**  
Bonnie Boardman

## Materials Science and Engineering

Duane Dimos  
Kyungsuk Yum

**Professor**  
Pranesh Aswath  
Ronald Elsenbaumer  
Choong-Un Kim  
Efstathios Meletis

**Associate Professor**  
Yaowu Hao  
Seong Jin Koh

**Assistant Professor**  
Fuqiang Liu

**Research Professor**  
Nai Yuen Chen  
Wiley P Kirk  
Harry Fred Tibbals

## Mechanical & Aerospace Engineering

Endel larve  
Baxter Mullins  
Flora Pinegar  
Sunand Santhanagopalan  
Robert Taylor

**Professor**  
Dereje Agonafer  
Erian Armanios  
Wen Chan  
Abdolhossein Haji-Sheikh  
David Hullender  
Kent Lawrence  
Frank Lu  
Cheng Luo  
Seiichi Nomura  
Bo Wang  
Donald Wilson  
Robert Woods  
Seung You

**Associate Professor**  
Bernd Chudoba  
Dragos Dancila  
Brian Dennis  
Atilla Dogan  
Haiying Huang  
Andrew Makeev  
Desheng Meng  
Panayiotis Shiakolas  
Kamesh Subbarao  
Albert Tong

**Assistant Professor**  
Ashfaq Adnan  
Alan Bowling  
Robert Harris  
Ankur Jain  
Daejong Kim  
Luca Maddalena  
Luca Massa  
Hyejin Moon  
Donghyun Shin

**Bo Yang**

**Professor Emeritus**  
**Roger Goolsby**

**Senior Lecturer**  
**Zhen Han**  
**Ratan Kumar**  
**Nancy Michael**  
**Clarence Wimberly**

**Lecturer**  
**Cecil Harris**

---

**Graduate Advisors**

**Natalie Burden**

*Materials Science and Engineering, B.S. to Ph.D.*  
*Materials Science and Engineering, Ph.D.*

**Sajib Datta**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science Unmanned Vehicle Systems Certificate*  
*Software Engineering, M.SWEN.*

**W Alan Davis**

*Electrical Engineering, M.Engr. Non Thesis*  
*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

**William E Dillon**

*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

**Atilla Dogan**

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, M.Engr.*  
*Aerospace Engineering, M.S.*  
*Aerospace Engineering, Ph.D.*

**Ramez Elmasri**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Kristiana Hamedi**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*

**Sheik Imrhan**

*Industrial Engineering, M.Engr.*  
*Industrial Engineering, M.S.*  
*Industrial Engineering, Ph.D.*

**Erick Jones**

*Logistics, M.S.*

**Bahram Khalili**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*

*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Seong Jin Koh**

*Materials Science and Engineering, M.Engr.*  
*Materials Science and Engineering, M.S.*  
*Materials Science and Engineering, Ph.D.*

**Donald Liles**

*Engineering Management, M.S.*  
*Systems Engineering, M.S.*

**Kytai Nguyen**

*Biomedical Engineering, M.S.*  
*Biomedical Engineering, Ph.D.*

**Seiichi Nomura**

*Mechanical Engineering, M.Engr.*  
*Mechanical Engineering, M.S.*  
*Mechanical Engineering, Ph.D.*

**James Mike O'Dell**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Flora Pinegar**

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, Ph.D.*  
*Mechanical Engineering, B.S. to Ph.D.*  
*Mechanical Engineering, Ph.D.*

**Sara Ridenour**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*  
*Master of Construction Management*

**Melanie Sattler**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.S.*  
*Civil Engineering, Ph.D.*

**Liping Tang**

*Biomedical Engineering, B.S. to Ph.D.*  
*Biomedical Engineering, Ph.D.*

**Mission**

**History and Overview**

**Research Interests of the Faculty**

**Programs**

**Mission**

The mission of the College of Engineering is to meet the needs of industry and society by:

- Producing highly competent graduates at the baccalaureate, master's and doctoral levels,

- Performing state-of-the-art research in the disciplines comprising the diverse fields of engineering, and
- Providing service to the community and engineering profession through outreach programs, involvement in professional societies, consulting, and interaction with industry and government.

## History and Overview

The College of Engineering at The University of Texas at Arlington is the third largest engineering college in Texas, and is the largest and most comprehensive in North Central Texas, with over 3,300 students and 150 faculty members in eight disciplines. Additionally, there are more than 20 research centers producing more than \$20 million in research for government and private industry.

The engineering program at UT Arlington evolved from a two-year program that was established at North Texas Agricultural College during the 1930s and 1940s. North Texas Agricultural College became Arlington State College, and in 1959 approval was given to begin a four-year engineering program. In 1965, Arlington State College joined The University of Texas System as The University of Texas at Arlington, and the first master's degree program in engineering was approved. The first Ph.D. program in engineering was added in 1969. Construction of the Engineering Laboratory Building in 1977, the Engineering Annex in 1980, the Automation & Robotics Research Institute (ARRI) in 1987, Nedderman Hall in 1988, the Nanotechnology Research and Teaching Facility in 2001 and the Engineering Office Buildings East and West in 2003 provided additional classroom and research laboratory space for the continued growth of the College of Engineering. Currently, four buildings are in the construction or planning stages: an Engineering Research Building adjoining the main engineering buildings, an expansion of the Engineering Laboratory Building, the Civil Engineering Laboratory Building, and the Center for Structural Engineering Research.

The college is a leader in distance education, providing a convenient way for working engineers to pursue a master's degree. Starting with TAGER, a dedicated microwave communications link in 1975, courses are now distributed on the Internet in streaming video, providing a very convenient access to students. More information can be found at [www.uta.edu/engineering/distance/](http://www.uta.edu/engineering/distance/).

## Research Interests of the Faculty

There is an excellent equipment infrastructure to support research in:

- nanotechnology
- microelectronics and MEMS
- robotics and manufacturing
- materials and their characterization
- pervasive computing
- intelligent systems
- software engineering
- networking
- embedded systems
- database systems
- multimedia systems
- bioinformatics
- information technology
- security
- transportation systems
- hydrology and hydraulics systems
- geotechnical engineering
- environmental engineering

- solid mechanics
- structural analysis
- aerodynamics
- flight mechanics and control
- electronic packaging
- energy systems
- optics
- statistics and optimizations
- and many more.

There are two formal research centers, the Automation & Robotics Research Institute (ARRI) and the Nanotechnology Research and Teaching Facility (NRTF), with the directors reporting to the Dean of Engineering.

Many College of Engineering faculty members collaborate with professors and researchers in other colleges at UT Arlington and other institutions in the state, around the U.S., and around the world. Therefore, for those interested in doing research as part of graduate training, there are many opportunities to work on research projects that are either within the home department or interdisciplinary with other departments.

## Programs

Graduate work in engineering at UT Arlington may lead to the master of science or doctor of philosophy in the following programs:

- **Biomedical Engineering**
- **Civil Engineering**
- **Computer Science and Engineering**
- **Electrical Engineering**
- **Industrial Engineering**
- **Materials Science and Engineering**
- **Mechanical & Aerospace Engineering**

Master's degree programs are available in:

- Logistics
- Engineering Management
- Software Engineering
- Systems Engineering

Graduate work leading to a practice-oriented master's degree usually requires a design project, report, internship or additional coursework. Details are given in the individual program descriptions that follow.

The program in Materials Science and Engineering (MSE) is under the auspices of both the College of Engineering and the College of Science. Biomedical Engineering is a joint program of the UT Arlington Bioengineering Department in association with The University of Texas Southwestern Medical Center at Dallas. The Master of Science in Logistics and Master of Science in Engineering Management are offered in partnership with the College of Business Administration. Descriptions of these programs are in the Interdepartmental and Intercampus Programs section of this catalog.

Please visit the graduate program Web site [www.uta.edu/engineering/graduate](http://www.uta.edu/engineering/graduate) for detailed information.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Liberal Arts

### Dean **Beth Wright**

Associate Dean **Elisabeth Cawthon**

Associate Dean **Kevin Gustafson**

Associate Dean **Les Riding-In**

Associate Dean **Kimberly van Noort**

Web [www.uta.edu/libarts/](http://www.uta.edu/libarts/)

Email [liberalarts@uta.edu](mailto:liberalarts@uta.edu)

Phone 817.272.3291

Fax 817.272.3255

210 University Hall

**601 S Nedderman Dr**

Box 19617, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Art + Art History

##### Professor

**Robert Hower**

**Benito Huerta Lozano**

**David Keens**

**Kenda North**

**Nancy Palmeri**

**Mary Vaccaro**

##### Associate Professor

**Lisa Graham**

**Marilyn Jolly**

**R Leighton McWilliams**

**Andrew Ortiz**

**Jack Plummer**

**Barton Weiss**

**Nicholas Wood**

##### Assistant Professor

**Amanda Alexander**

**Melia Belli**

**Zenas Ikeda**

**Darryl Lauster**

**Benjamin Lima**

**Dwain Ya'Ke Smith**

**Salvatore Terrasi**

##### Special Member

**Bryan Florentin**

**Sedrick Huckaby**

**Stephen Lapthisophon**



## Communication

### Associate Professor

Thomas Christie  
Andrew Clark  
Tom Ingram  
Chyng-Yang Jang  
Charla Markham Shaw  
Eronini Megwa

### Assistant Professor

Karishma Chatterjee  
Dustin Harp  
Erika Pribanic-Smith  
Chunke Su  
Mark Tremayne  
Shelley Wigley

### Senior Lecturer

Brian Horton

## Criminology & Criminal Justice

### Professor

Alejandro Del Carmen

### Associate Professor

Robert Bing

### Assistant Professor

Jaya Davis  
Seokjin Jeong  
Tony Love  
John Rodriguez

### Visiting Assistant Professor

Christopher Copeland

### Senior Lecturer

Randall Butler  
Karel Carpenter  
Rhonda Dobbs  
Patricia Eddings  
Kristy Smith  
Royce West

## English

Bruce Krajewski

### Professor

Stacy Alaimo  
Timothy Morris  
Kenneth Roemer

### Associate Professor

Luanne Frank  
Kevin Gustafson  
Desiree Henderson  
Penelope Ingram  
Neill Matheson  
Kevin Porter  
Timothy Richardson  
Johanna Smith  
Jacqueline Stodnick  
Amy Tigner

### Assistant Professor

William Arce  
James Warren  
Yuejiao Zhang

## History

Paul Conrad  
David Lafevor  
Scott Palmer

**Professor**

Thomas Adam  
Imre Demhardt  
Robert Fairbanks  
Sam Haynes  
Donald Kyle  
Christopher Morris  
Stanley Palmer  
Jerry Rodnitzky

**Associate Professor**

Elisabeth Cawthon  
Stephanie Cole  
William Dulaney  
John Garrigus  
Joyce Goldberg  
Alusine Jalloh  
Stephen Maizlish  
David Narrett  
Steven Reinhardt  
Gerald Saxon  
Roberto Trevino

**Assistant Professor**

Patryk Babiracki  
Oliver Bateman  
Sarah Rose  
Cristina Salinas  
Kenyon Zimmer

**Professor Emeritus**

George Green  
Kenneth Philp  
Douglas Richmond

**Linguistics**

Suwon Yoon

**Professor**

Colleen Fitzgerald  
David Silva

**Associate Professor**

Laurel Stvan

**Assistant Professor**

Cynthia Kilpatrick  
Joseph Sabbagh  
Jeffrey Witzel

**Professor Emeritus**

Jerold Edmondson

**Senior Lecturer**

Naoko Witzel

**Military Science**

Lora Rimmer

**Modern Languages**

**Associate Professor**

Jinny Choi  
Christopher Conway  
Raymond Elliott  
Aimee Israel-Pelletier

Lana Rings  
Ignacio Ruiz-Perez  
Antoinette Sol  
Kimberly van Noort

**Assistant Professor**

Amy Austin  
Sonia Kania  
Christopher Stewart  
Sonja Watson

**Music**

Sarah Frisof  
David Grogan

**Department Chair**

Rick Bogard

**Professor**

John Burton  
Linton Powell  
Jing Tam

**Associate Professor**

Daniel Cavanagh  
George Chave  
Sergio Espinosa  
Graham Hunt  
Timothy Ishii  
Carol Jessup  
Karen Kenaston-French  
Soo Kim  
Diane Lange  
John Solomons  
Douglas Stotter  
Michael Varner  
Martha Walvoord

**Assistant Professor**

Sean Atkinson  
Young-Hyun Cho  
Clifton Evans  
Christopher Pool

**Philosophy and Humanities**

**Professor**

Susan Hekman

**Associate Professor**

Lewis Baker  
Keith Burgess-Jackson  
Charles Chiasson  
Charles Nussbaum  
Harry Reeder  
Kenneth Williford

**Assistant Professor**

Miriam Byrd

**Political Science**

**Senior Vice Provost**

Michael Moore

**Professor**

Mark Cichock  
Victoria Farrar-Myers  
Jose Gutierrez  
Susan Hekman  
Joseph Ignagni  
Thomas Marshall

**Dale Story**

**Associate Professor**

**Brent Boyea**  
**Jill Clark**  
**Rebecca Deen**  
**Allan Saxe**

**Assistant Professor**

**Aytem Bayram**  
**Heidi Hardt**  
**Brent Sasley**  
**Daniel Sledge**

**Associate Adjunct Professor**

**Thomas Little**

**Professor Emeritus**

**Allan Butcher**

**Senior Lecturer**

**Larry Carter**

**Sociology and Anthropology**

**Professor**

**Ben Agger**  
**Beth Anne Shelton**  
**Shelley Smith**  
**Robert Young**

**Associate Professor**

**Susan Baker**  
**Dana Dunn**  
**Heather Jacobson**  
**Robert Kunovich**  
**Linda Rouse**  
**Christian Zloliniski**

**Assistant Professor**

**Krystal Beamon**  
**Naomi Cleghorn**  
**Chunping Han**  
**Ritu Khanduri**  
**Jason Shelton**  
**Amy Speier**

**Professor Emeritus**

**Joseph Bastien**  
**Raymond Eve**

**Lecturer**

**Josephine Ryan**

**Theatre Arts**

**Professor**

**Andrew Gaupp**  
**Kim Lafontaine**

**Associate Professor**

**Joe Chapa**  
**Joseph Kongevick**  
**Dennis Maher**

---

**Graduate Advisors**

**Amy Austin**

*Modern Languages, French Certificate*  
*Modern Languages, M.A. (Spanish or French Concentration)*  
*Modern Languages, Non-Degree Seeking*

*Modern Languages, Spanish Certificate*

**Thomas Christie**  
*Communications, M.A.*

**Stephanie Cole**  
*History, M.A.*

**Rhonda Dobbs**  
*Criminology and Criminal Justice, M.A.*

**Clifton Evans**  
*Music Performance, M.M. Thesis*  
*Music, M.M.*

**John Garrigus**  
*Transatlantic History, Ph.D.*

**Heather Jacobson**  
*Sociology, M.A. Thesis*

**Cynthia Kilpatrick**  
*Teaching English to Speakers of Other Languages, M.A.*

**Nancy Palmeri**  
*Art, M.F.A.*

**John Rodriguez**  
*Criminology and Criminal Justice, M.A.*

**Josephine Ryan**  
*Anthropology, M.A.*

**Joseph Sabbagh**  
*Linguistics, M.A.*

**Brent Sasley**  
*Political Science, M.A.*

**Amy Tigner**  
*English, M.A.*  
*English, Non-Degree Seeking*  
*English, Ph.D.*

**Jeffrey Witzel**  
*Linguistics, Ph.D.*

**Kenyon Zimmer**  
*Transatlantic History, B.A. to Ph.D.*  
*Transatlantic History, Ph.D.*

## **Mission and Philosophy**

### **History and Overview**

### **Scholastic Activity and Research Interests of the Faculty**

### **Special Programs and Opportunities**

- **Lecture Series, Seminars and Conferences**
- **Publications**
- **Centers**
- **Other Resources**

### **Programs**

## **Mission and Philosophy**

The mission of the College of Liberal Arts is to provide a learning community wherein students are provided both broad-based and specialized education and to vitalize the educational process by creating and transmitting knowledge through research, scholarship and creative activity.

The college is characterized by a diversity of intellectual styles and interests. Departments and

programs cluster into social sciences, humanities and fine arts. Liberal Arts disciplines address the rich meanings of human experience and expression and liberate the imagination by producing knowledge and creating beauty.

The faculty and administration of the college address the traditional objectives of liberal arts in the University: 1) to develop the tools for analysis, appreciation and communication; for written and oral expression; for comprehension, interpretation, and analysis of textual material; for analytic reasoning and scientific method; and for appreciation of aesthetic experience; 2) to prepare students for a range of careers in academia and public and private sector organizations. Graduates of the college contribute to the region, the state and the nation as college and university professors, elementary and secondary teachers, legal professionals, in government agencies, social services, international business and industry, media and advertising, health and recreation, and cultural and entertainment industries; and 3) to promote understanding and critical evaluation of the cultural milieu the attitudes and the ideas that shape institutions and strategies in societies.

Accomplishing these objectives culminates in students reaping the creative, utilitarian and life enriching benefits of a liberal arts education.

## History and Overview

The University of Texas at Arlington's College of Liberal Arts acquired its first graduate degrees in 1968, with the establishment of M.A. programs in English and History. Since that time, the number of M.A. programs offered has expanded to 13. In 1974, the college established its first Ph.D. level program, Humanities. The Humanities Program was reorganized in 1997 and replaced by three new Ph.D. level programs in English (Literature and Rhetoric/Composition tracks), History (transatlantic) and Linguistics. A joint Ph.D. in Philosophy with the University of North Texas was approved in 2005.

## Scholastic Activity and Research Interests of the Faculty

The faculty in the College of Liberal Arts excel in their roles as educators, creative scholars and researchers. Eight faculty members have won the Academy of Distinguished Teachers Award, and eight faculty are Chancellor's Teaching Award recipients. Two of our faculty have won the prestigious Piper Award from the UT System. Several faculty from a variety of departments in the college also have won the University Research Achievement Award. Numerous faculty have received recognition for their published scholarship, including Pulitzer Prize nominations and the *Choice* magazine Outstanding Academic Book Award. The Jenkins and Virginia Garrett Endowed Chair in Greater Southwestern Studies and the History of Cartography was created in 1995 and is currently held by David Buisseret, Ph.D. Five faculty from the College of Liberal Arts have been selected to be members of the Academy of Distinguished Scholars.

The scholarly activities and research of the faculty cover a range of areas represented within the 13 disciplines in the college. History faculty research interests center on transatlantic broadly defined, and research specializations of faculty include southern, western and southwestern history, frontier development, women and gender, urban and labor and public history. English faculty research strengths lie in the areas of American, British and comparative literatures; and rhetoric, composition and criticism. Linguistics faculty specialize in field linguistics. Numerous faculty throughout the college also conduct research on gender and women's issues. Anthropology faculty members recently became the first foreign archaeological team to excavate in Albania in more than 50 years.

## Special Programs and Opportunities

The College of Liberal Arts provides a number of special programs and opportunities for graduate students. College lecture series and seminars, conferences, publications, academic centers, library collections and an art gallery provide a mosaic of events and resources that enrich the university community.

### Lecture Series, Seminars and Conferences:

- Each year the English Department sponsors the Hermann Lecture series, which brings

scholars from UT Arlington and other universities together for discussions and master classes on an issue of general theoretical interest.

- The History Department presents the Walter Prescott Webb Memorial Lectures each March. Nationally prominent speakers make presentations on an annual topic, followed by a dinner in the University Center and a keynote address.
- Graduate students in Linguistics sponsor a Linguistics Conference each year. This conference provides an opportunity for students to begin their professional careers by organizing the sessions, reviewing paper abstracts and presenting their own research.
- The Women's Studies Program organizes an annual, month-long Women's History Month Lecture Series. Exhibits and film/video presentations also are included as part of the events scheduled during the month of April. The Women's Studies Brown Bag Colloquium is another forum for scholars, primarily UT Arlington faculty, to share their research with the University community.
- The Criminal Justice and Criminology Program sponsors a Brown Bag Lecture Series every spring semester, and students have the opportunity to receive credit for practicums.
- The Philosophy Lecture Series is sponsored by the Department of Philosophy and Humanities, together with the Philosophy Club at UT Arlington. Each semester, a philosopher of national or international reputation from another university is invited to the UT Arlington campus to lecture on a topic of current philosophical interest.
- The Department of Political Science hosts the annual Haggard Lectures, bringing in nationally and internationally known scholars in the field.
- Each spring the Department of Sociology and Anthropology hosts the annual Termini Lecture Series in Anthropology, which brings a nationally prominent anthropologist to campus to speak on topics of general interest. The speaker typically presents a public lecture and a more informal presentation, primarily for the benefit of students, on a related topic.
- The Department of History hosts an annual student conference for the graduate students.

### Publications

- The History Department publishes an annual volume comprised of Webb Lecture Series papers.
- The English Department houses the online literary review "Znine" and the online journal "Pretext."
- The Center for Theory houses the online journal "Fast Capitalism."
- Individual departments/programs publish newsletters which provide news and information about and for students, faculty and alumni.

### Centers

The College of Liberal Arts houses numerous centers designed to promote scholarship, research and teaching. These centers organize conferences, lecture series and workshops and provide a conduit for making faculty expertise available to the community. College of Liberal Arts centers are listed below and described in the Facilities for Advanced Studies and Research section of this catalog.

The Center for Criminal Justice Research and Training  
The Center for Greater Southwestern Studies and the History of Cartography  
The Center for Mexican American Studies  
The Center for Post-Soviet and East European Studies  
The Center for Social Research  
The Center for Theory  
The English Language Institute  
The International Linguistics Center  
The Language Acquisition Center

## The Women and Minorities Research and Resource Center

### Other Resources

- In support of the history M.A. and Ph.D. programs, the UT Arlington Library Special Collections houses the Jenkins Garrett Library of Texana and Mexican War historical material and the Cartographic History Library. In addition, Special Collections has material on UT Arlington's history since 1895, the history of organized labor in Texas and the Southwest, and Yucatan and Honduran archival materials.
- The Gallery at UT Arlington presents a full program of major exhibitions in its 4,000-square-foot gallery, including lectures, symposia, screenings and publications. The Gallery's program demonstrates the complementary roles of visual and verbal literacy.
- The Department of Modern Languages has a Language Laboratory which produces innovative software in language learning.
- The Department of Music offers laboratory facilities and the Fine Arts Library contains an extensive collection of recordings and publications relating to musical performance and theory.
- The Anthropology Program has a biological anthropology lab, and offers an archaeological field school every summer where students can gain academic credit for learning and applying archaeological field methods.
- Numerous student organizations exist on campus to provide students with the opportunity to interact with peers in their disciplines. These student groups include interdisciplinary organizations for graduate students interested in Medieval Studies and Rhetoric; and honor societies for Anthropology, Communication, Criminal Justice, English, History, Political Science, and Sociology, as well as specialized interest groups.
- Student awards, scholarships and teaching and research assistantships are available in many College of Liberal Arts departments and programs. Each spring the History Department awards an outstanding graduate student the Wolfskill Prize, a cash award and plaque representing superior attainment in history studies. The English Language Institute, a part of the Program in Linguistics, provides graduate teaching assistantships. A McNair Fellowship is sponsored by the Office of the Dean.
- The Dean of College also awards funds for research travel and for travel to conferences for presentation of original research.

### Programs

The College of Liberal Arts offers the following graduate degree programs:

Anthropology, M.A.  
Communication, M.A.  
Criminology and Criminal Justice, M.A.  
English, M.A., Ph.D.  
History, M.A.; Transatlantic History, Ph.D.  
Humanities, M.A.  
Linguistics, M.A., Ph.D.; TESOL, M.A.  
Modern Languages (French and Spanish), M.A.  
Music Education, M.M.  
Philosophy, joint Ph.D. with UNT.  
Political Science, M.A.; Public Administration, M.PA.  
Sociology, M.A.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[Nursing - MSN, DNP, &  
PhD](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## College of Nursing

**Dean Elizabeth Poster**

**Associate Dean Jennifer Gray**  
**Associate Dean Mary Schira**  
**Associate Dean Michael Young**

Web [www.uta.edu/nursing/](http://www.uta.edu/nursing/)

Email [nursing@uta.edu](mailto:nursing@uta.edu)

Phone 817.272.2776

Fax 817.272.5006

669 Pickard Hall  
**411 S Nedderman Dr**  
Box 19407, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Nursing

**Associate Dean**  
**Mary Schira**

#### Clinical Assistant Professor

**Susan Baxley**  
**Deborah Behan**  
**Susan Carlson**  
**Daisha Cipher**  
**Chad Collom**  
**Jeannette Crenshaw**  
**Elizabeth Ellis**  
**Beverly Ewing**  
**Christopher Fowler**  
**John Gonzalez**  
**Linda Grande**  
**Nancy Handy**  
**Valerie Hart**  
**Lauri John**  
**Carol Lieser**  
**Jacqueline Michael**  
**Mary Jo Perley**  
**Cynthia Plonien**  
**Lisa Taylor**  
**Phyllis Wood**

#### Clinical Associate Professor

**Phyllis Adams**  
**Joy Baker**

**Interim Dean, College of Nursing; Associate Dean, Dept. MSN Administration, Education, and PhD Programs; Professor**  
**Jennifer Gray**

**Interim Director, Doctor of Nursing Practice, Clinical Assistant Professor**  
**Sharolyn Dihigo**

**Interim Director, MSN Education Program; Clinical Instructor**  
**Marie Lindley**

**Professor**  
**Mary Lou Bond**  
**Carolyn Cason**  
**Judy Leflore**  
**Mary Mancini**

**Associate Professor**  
**Cheryl Anderson**  
**Donelle Barnes**  
**Maureen Courtney**  
**Barbara Raudonis**  
**Marilee Schmelzer**

**Assistant Professor**  
**Maxine Adegbola**  
**Mindi Anderson**  
**Mary Cazzell**  
**Kathryn Daniel**  
**Ronda Mintz-Binder**

**Associate Adjunct Professor**  
**Lorraine Hegstad**

**Clinical Professor**  
**Diane Snow**

**Assistant Clinical Professor**  
**Patricia Thomas**

**Clinical Instructor**  
**Deborah Boger**  
**Essence Carter Griffin**  
**Sara Duvall**  
**Paula Gillman**  
**Marcia Harris**  
**Mary Haskew**  
**Kellie Kahveci**  
**Sandra Laird**  
**Sayda Major**  
**Bethany Mcclean**  
**Howard Mckay**  
**Lindy Moake**  
**Jodie Moore**  
**Sara Moore**  
**Patti Parker**  
**Vicki Patrick**  
**Dixie Stevenson**  
**Kimberly Wright**  
**Nancy Wyrick**

---

## Graduate Advisors

**Felicia Chamberlain**  
*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Accelerated Online Nursing Admin., M.S.N.*

**Jennifer Gray**  
*Nursing Administration, B.S.N. to Ph.D.*  
*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

**Lauri John**  
*Nursing Administration, B.S.N. to Ph.D.*

*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

**Marie Lindley**

*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Nursing Education, M.S.N.*

**Cynthia Plonien**

*Accelerated Online Nursing Admin., M.S.N.*  
*Nursing Admin. Executive, M.S.N. Non Thesis*

**Mary Schira**

*Doctor of Nursing Practice, D.N.P.*  
*Nurse Practitioner, Post Master Cert-Family*  
*Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care*  
*Nurse Practitioner, Post Masters Cert, Neonatal*  
*Nurse Practitioner, Post Masters Cert, Pediatric Acute Care*  
*Nurse Practitioner, Post Masters Cert, Pediatric Primary Care*

**Mission and Philosophy**

**History and Overview**

**Accreditation**

**Scholastic Activities and Research Interests of the Faculty**

**Special Programs and Opportunities**

- **Smart Hospital™**
- **Learning Resources Center**
- **Center for Nursing Research**
- **Center for Hispanic Studies in Nursing and Health**
- **Rural Health Outreach Program**
- **Center for Continuing Nursing Education**
- **Programs**
- **Major Areas of Study for Master's of Science in Nursing (MSN)**
- **PhD in Nursing**
- **Doctor of Nursing Practice (DNP)**

**Mission and Philosophy**

The College of Nursing is an integral component of The University of Texas at Arlington and subscribes to the mission of the University. The College of Nursing prepares quality nurse health care providers through excellence in education, scholarship and service. The undergraduate and graduate academic programs prepare individuals for professional nursing roles and for collaboration with other professionals and consumers in the delivery of holistic health care.

The faculty believes learning is a continuous lifelong process and a personal responsibility. Students must be actively involved in the learning process to acquire clinical proficiency and to be socialized into professional roles. Learning experiences are implemented to achieve sequence, continuity, and synthesis of knowledge and expertise as defined by the educational outcomes. Teaching and learning are dynamic processes involving curriculum evaluation and revision based on research evidence, the needs of a multicultural society, and the changing health care system. The educational process facilitates the development of each person's potential and promotes cultural competence and assimilation of ethical principles.

Faculty and students foster an educational climate of mutual respect, honesty, intellectual inquiry, creativity, and effective communication. We contribute to the development of our profession

through the conduct of research and the dissemination and application of evidence-based knowledge. Faculty and students provide service to the community through clinical practice and leadership.

Undergraduate nursing education builds on a foundation of studies in the sciences, humanities, and arts. The baccalaureate program prepares competent, self-directed generalist nurses (Registered Nurses) who can assume increasing responsibility and leadership in the delivery of evidence-based nursing care.

Master's education builds on a foundation of undergraduate nursing education and provides specialty practice with an expanded theoretical and empirical knowledge base. The Master of Science in Nursing programs prepares Registered Nurses for advanced functional roles that require increased accountability, expertise, and leadership. Graduates are prepared to provide evidence-based health care in collaboration with other health care providers and consumers.

Doctoral education develops and advances empirical knowledge to promote evidence-based practice in the discipline of nursing. Graduates have a background to develop theories and conduct research with vulnerable populations and to assume academic, research, and leadership roles. The doctorate provides a basis for future research programs and other scholarly activities.

Lifelong learning is the responsibility of each professional nurse. Continuing education programs developed by the College of Nursing are sensitive to the influences of a changing society and respond to the continuing education needs of professional nurses in Texas.

## History and Overview

The UT Arlington College of Nursing was established in 1971 as the U.T. System College of Nursing in Fort Worth and was housed in John Peter Smith Hospital. The first baccalaureate class enrolled in fall of 1972; the graduate program (MSN) began in 1975. In 1976, the school became an academic unit of UT Arlington, moving to the campus in 1977.

The Undergraduate Program consists of the BSN and the RN to BSN programs. In addition to the Arlington campus, the RN to BSN program is offered via distance education strategies. The Graduate Program offers a Master of Science in Nursing (MSN) with preparation as a nurse practitioner in the areas of Acute Care Adult Gerontology --(1996), Acute Care Pediatric (2005), Adult Gerontology Primary Care (previously Adult and Gerontology) (2013), Family (1975), Gerontology (1984), Neonatal (2008), Primary Care Pediatric (1985) and Psychiatric-Mental Health (1995). Post-master's certificates are available in all the above nurse practitioner specialties. In addition, the UT Arlington MSN Program offers preparation in Nursing Administration (1982) and Nursing Education (2008). Nursing Administration is also offered online through the UT Arlington Academic Partnership program. A dual degree of MSN (administration major) and Masters of Business Administration (MBA) was offered in 1999 and a dual degree of MSN and Masters of Science in Health Care Administration was offered in 2001. A joint degree of MSN and Masters in Public Health (MPH) was offered with University of North Texas Health Science in Center in 2007. Certificates are offered in: Nursing Education (2001) and Advanced Nurse Educator Role (2001). A PhD in Nursing was approved in April 2003 with classes beginning in Fall 2003. A BSN-to-PhD entry option was approved in 2005, with classes beginning in Fall 2006. A Doctor of Nursing Practice (DNP) began in Fall 2009.

## Accreditation

The Master of Science in Nursing and Doctor of Nursing Practice Programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The CCNE address is One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120; Phone is (202) 887-6791 and fax is (202) 887-8476; and Website: [www.aacn.nche.edu/accreditation](http://www.aacn.nche.edu/accreditation). There are no accrediting agencies for PhD in Nursing programs.

## Scholastic Activities and Research Interests of the Faculty

The research programs of the College of Nursing faculty are diverse. A sampling of their areas of study includes Genomics (Dr. Barbara Raudonis); Hispanic health care (Dr. Donelle Barnes and Dr. Susan Baxley); effects of colon cleansing/ gastroenterology (Dr. Marilee Schmelzer); nursing care outcomes (Dr. Reni Courtney); leadership in nursing education (Dr. Ronda Mintz-Binder); chemical dependency and abuse (Dr. Cheryl Anderson and Dr. Diane Snow); nurses in international settings (Dr. Jennifer Gray); sickle cell disease (Dr. Phyllis Adams and Dr. Maxine Adegbola); care of the elderly (Dr. Barbara Raudonis and Dr. Kathryn Daniel); oncology (Dr. Laurie Johns); simulation instruction (Dr. Mindi Anderson and Dr. Judy LeFlore); neonatology, and very low birth weight (Dr. Judy LeFlore).

## Special Programs and Opportunities

### Smart Hospital™

Interim Assistant Dean, Dr. Judy LeFlore

The Smart Hospital™ is a simulated hospital environment complete with state-of-the-science equipment and furnishings. In this facility, students interact with and provide care to a full array of simulated patients who occupy the Emergency Department, ICU, Labor and Delivery suite, pediatric unit, Neonatal ICU, adult medical/surgical beds and the resuscitation room for large team training. Students learn utilizing simulation technology including full body interactive patient simulators, computerized scenario-based programs and individual trainers for specific skills.

### Learning Resources Center

Executive Assistant to the Dean: Lalita Thompson

The mission of the Center is to provide both undergraduate and graduate students support to develop, refine, and apply knowledge in the clinical practice of skills. Computer labs are available for student use. Faculty members are provided resources to support classroom instruction, clinical learning activities, and scholarly endeavors.

### Center for Nursing Research

Associate Dean: Dr. Michael Young

Scholarship is an essential component of the professional role in the College of Nursing. The Center provides support services to faculty and students: identifying funding sources; developing competitive proposals; writing grant applications; retrieving literature; collecting, entering and analyzing data; and disseminating research results and other scholarly products. Collaborative relationships for research with Metroplex health care agencies are in place.

### Center for Hispanic Studies in Nursing and Health

Co-Directors: Dr. Wendy Barr and Dr. Mary Lou Bond

The Center is dedicated to fostering an understanding between health care professionals and people of Hispanic origin for the purpose of increasing understanding of health and healing through research of individual experience, cultural meanings, and the structure of institutions as important variables influencing health outcomes. The Center is also committed to the provision of educational programs and services which will assist health care providers to gain the necessary knowledge and skills to deliver increasingly culturally sensitive and competent care. The Center promotes interdisciplinary and interuniversity collaboration as a strategy for development of resources to solve or deal with bicultural issues facing health care professionals.

### Rural Health Outreach Program

Director: Sylvia Rawlings

The purpose of the Center is to provide appropriate, affordable, accessible continuing education to

the nursing staffs of acute care and psychiatric hospitals, long term care facilities, home health agencies, and other health care facilities in the rural communities of North Central Texas.

### Center for Continuing Nursing Education

The mission of this Center is to provide quality continuing nursing education for the improvement of nursing practice and health care in North Texas. The program strives to be a regional center for the advancement of professional continuing nursing education and to meet the diverse needs of nurses in most every clinical specialty and all levels of functional roles.

### Programs

The Graduate Nursing Program is comprised of two departments – The Department of MSN Administration, Education, and PhD Programs and Research and the Department of Advanced Practice Nursing. The Department of Nursing Administration, Education and Research is made up of the MSN in Nursing Administration (including the dual MSN/MBA and MSN/HCAD degrees and the joint MSN/MPH programs), the MSN in Nursing Education and the PhD in Nursing Programs. The Department of Advanced Practice Nursing is made up of all Nurse Practitioner and Post Master's Nurse Practitioner Certificate Programs and the DNP Program.

### Major Areas of Study for Master's of Science in Nursing (MSN)

- **Nursing Administration**
- **Nursing Education**
- **Nurse Practitioner Programs**
  - Acute Care Adult Gerontology Nursing
  - Acute Care Pediatric Nursing
  - Adult Gerontology Nursing
  - Family Nursing
  - Neonatal Nursing
  - Primary Care Pediatric Nursing
  - Family Psychiatric Mental Health Nursing

### PhD in Nursing

### Doctor of Nursing Practice (DNP)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[School of Architecture](#)[College of Business](#)[College of Education and Health Professions](#)[College of Engineering](#)[College of Liberal Arts](#)[College of Nursing](#)[College of Science](#)[Biology](#)[Chemistry & Biochemistry](#)[Earth and Environmental Sciences](#)[Interdisciplinary Science](#)[Mathematics](#)[Physics](#)[Psychology](#)[School of Social Work](#)[School of Urban and Public Affairs](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## College of Science

**Dean Pamela Jansma****Dean Morteza Khaledi****Associate Dean Minerva Cordero-Epperson****Associate Dean James Grover****Associate Dean Raymond Jackson**Web [www.uta.edu/cos/](http://www.uta.edu/cos/)Email [norris@uta.edu](mailto:norris@uta.edu)

Phone 817.272.3491

Fax 817.272.3511

206 Life Science Building

**501 S Nedderman Dr**

Box 19047, Arlington, Texas 76019, USA

---

## Graduate Faculty

### Biology

[Todd Castoe](#)  
[Woo-Suk Chang](#)  
[Allan Clay Clark](#)  
[Jeffery Demuth](#)  
[John Fondon](#)  
[Matthew Fujita](#)  
[Jason Kubinak](#)  
[Maeli Melotto](#)  
[Mark Pellegrino](#)  
[Jorge Rodrigues](#)  
[Eric Smith](#)  
[Matthew Walsh](#)  
[Sen Xu](#)  
[Kai Zhu](#)

### Professor

[Jonathan Campbell](#)  
[Paul Chippindale](#)  
[Thomas Chrzanowski](#)  
[Daniel Formanowicz](#)  
[Bernard Frye](#)  
[James Grover](#)  
[Robert McMahon](#)  
[James Robinson](#)

### Associate Professor

[David Bernard](#)  
[Esther Betran](#)  
[Laura Gough](#)  
[Sophia Passy](#)

**Michael Roner**

**Assistant Professor**

**Shawn Christensen**  
**Cedric Feschotte**  
**Julian Hurdle**  
**Laura Mydlarz**  
**Andre Pires Da Silva**  
**Ellen Pritham**

**Chemistry & Biochemistry**

**Morteza Khaledi**  
**Robin Macaluso**

**Professor**

**Daniel Armstrong**  
**Purnendu Dasgupta**  
**Rasika Dias**  
**Ronald Eisenbaumer**  
**Carl Lovely**  
**Frederick Macdonnell**  
**Krishnan Rajeshwar**  
**Richard Timmons**

**Associate Professor**

**Jongyun Heo**  
**Peter Kroll**  
**Subhrangsu Mandal**  
**Kevin Schug**

**Assistant Professor**

**Alejandro Bugarin**  
**Saiful Chowdhury**  
**Frank Foss**  
**Junha Jeon**  
**Kayunta Johnson-Winters**  
**Roshan Perera**  
**Bradley Pierce**

**Professor Emeritus**

**Martin Pomerantz**  
**Zoltan Schelly**

**Earth and Environmental Sciences**

**Professor**

**Asish Basu**  
**Glen Mattioli**  
**Merlynd Nestell**  
**John Wickham**

**Associate Professor**

**Qinhong Hu**  
**Andrew Hunt**

**Assistant Professor**

**Majie Fan**  
**Elizabeth Griffith**  
**William Griffith**  
**Arne Winguth**

**Adjunct Professor**

**Galina Nestell**

**Associate Adjunct Professor**

**Larry Standlee**

**Assistant Adjunct Professor**

**Harold Rowe**

**Interdisciplinary Science**



**Director**

Gregory Hale

**Mathematics**

Suvra Pal

Jonghyun Yun

**Professor**

Tuncay Aktosun

Benito Chen

Minerva Cordero-Epperson

Chien-Pai Han

David Jorgensen

Hristo Kojouharov

Andrzej Korzeniowski

Ren-Cang Li

Guojun Liao

Chaoqun Liu

Yue Liu

Merlynd Nestell

Jianzhong Su

Shan Sun-Mitchell

Michaela Vancliff

**Associate Professor**

Gaik Ambartsoumian

James Epperson

Ruth Gornet

Dimitar Grantcharov

Doyle Hawkins

Theresa Jorgensen

Barbara Shipman

**Assistant Professor**

Yan Li

**Physics**

Jonathan Asaadi

Matthew Benacquista

Haleh Hadavand

Fredrick Jenet

Mingwu Jin

Benjamin Jones

Soma Mukherjee

David Nygren

Malik Rakhmanov

Joseph Romano

**Professor**

Andrew Brandt

Manfred Cuntz

Kaushik De

John Fry

Ali Koymen

Ping Liu

Ramon Lopez

Zdzislaw Musielak

Asok Ray

Roy Rubins

Suresh Sharma

Alexander Weiss

Andrew White

Jaehoon Yu

Qiming Zhang

**Associate Professor**

Wei Chen

Nail Fazleev

**Assistant Professor**

Yue Deng

**Amir Farbin**  
**Muhammad Huda**  
**Christopher Jackson**  
**Samarendra Mohanty**  
**Joseph Ngai**  
**Sangwook Park**

### **Psychology**

**Angela Liegey-Dougall**  
**Qing Lin**  
**Kelsey Medeiros**  
**Pablo Mora**  
**Craig Nagoshi**  
**Heekyeong Park**  
**Amber Schroeder**  
**Shannon Scielzo**  
**Karen Twohey**

### **Assistant Professor in Practice**

**Nicolette Lopez**

### **Professor**

**Robert Gatchel**  
**William Ickes**  
**Daniel Levine**  
**Roger Mellgren**  
**Paul Paulus**

### **Associate Professor**

**Perry Fuchs**  
**Lauri Jensen-Campbell**  
**Jared Kenworthy**  
**Martha Mann**  
**Yuan Peng**

### **Assistant Professor**

**Jeffrey Gagne**  
**Linda Perrotti**

### **Professor Emeritus**

**Verne Cox**

---

## **Graduate Advisors**

### **Gloria Burlingham**

*Biology, M.S.*  
*Biology, Non-Degree Seeking*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Paul Chippindale**

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Shawn Christensen**

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Stacey Cody**

*Physics and Applied Physics, B.S. to Ph.D.*  
*Physics and Applied Physics, Ph.D.*

### **James Epperson**

*Mathematics, M.A.*

### **Gregory Hale**

*Interdisciplinary Science, M.A.*

**Andrew Hunt**

*Earth and Environmental Science / Geology, M.S.*  
*Earth and Environmental Science, Ph.D.*

**Jared Kenworthy**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*

**Hristo Kojouharov**

*Applied Statistics Certificate*  
*Mathematical Sciences, Mathematics, Ph.D.*  
*Mathematics (General Mathematics), B.S. to Ph.D.*  
*Mathematics (General Mathematics), M.S.*  
*Mathematics (General Mathematics), Ph.D.*  
*Mathematics (General Statistics), B.S. to Ph.D.*  
*Mathematics (General Statistics), M.S.*  
*Mathematics (General Statistics), Ph.D.*

**Peter Kroll**

*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, Ph.D.*

**Maria Levings**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**Robin Macaluso**

*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, M.S. Thesis Substitute*  
*Chemistry, Non-Degree Seeking*  
*Chemistry, Ph.D.*

**Paul Paulus**

*Psychology, Industrial and Organizational, M.S.*

**Yuan Peng**

*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*

**Michael Roner**

*Biology, M.S.*  
*Quantitative Biology, B.S. to Ph.D.*  
*Quantitative Biology, Ph.D.*

**Sarah Watson**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**John Wickham**

*Earth and Environmental Science / Geology, M.S.*

**Qiming Zhang**

*Physics, M.S.*

**Mission and Philosophy**

- **Overview**

**Scholastic Activity and Research Interests of the Faculty**

- **Biology**
- **Chemistry and Biochemistry**

- **Earth and Environmental Sciences**
- **Mathematics**
- **Physics**
- **Psychology**
- **Science Education**

#### **Programs**

- **Master of Science Degrees**
- **Master of Arts Degree**
- **Doctoral Degrees**

## **Mission and Philosophy**

The College of Science graduate programs are committed to excellence in graduate education and research and contribute, along with other institutions in this country and throughout the world, to the expansion of scientific knowledge. Graduates of our programs are highly trained and educated scientists who will be able to contribute to the economic and social well-being of our state and nation.

### **Overview**

With outstanding departments of Biology, Chemistry and Biochemistry, Earth and Environmental Sciences, Mathematics, Physics and Psychology, the College of Science offers comprehensive graduate studies with our world class faculty and research programs. In addition to providing our students with strong core training in the physical and life sciences, we have a graduate program in Materials Science and Engineering and offer specialized Masters degrees for educators to expand their core science training. Interdisciplinary programs and Research Centers provide students with opportunities to span disciplines, and student research activities are complemented by excellent research facilities and state-of-the-art instrumentation. The College and Departments host a series of seminars to further expose our students to cutting edge science developments.

Master's degrees are offered in all of our departments, and we award Ph.D. degrees in Quantitative Biology, Applied Chemistry, Environmental and Earth Sciences, Mathematical Sciences, Mathematics, Applied Physics, Experimental Psychology, and Materials Science and Engineering. For application and entrance requirements, or more on our graduate programs, please call us or visit our Web site at [www.uta.edu/cos](http://www.uta.edu/cos).

## **Scholastic Activity and Research Interests of the Faculty**

### **Biology**

The Department of Biology has a wide array of research programs ranging from molecular through ecosystem levels of integration. The program boasts strengths in ecology and systematics, evolution, microbiology, genomics, and molecular biology, and has active funding from a variety of private and public agencies. The department also hosts centers for genomics, biological macrofouling, electron microscopy and a collection of vertebrates. The research program emphasizes quantitative aspects of biology and provides students with strong training in statistics and experimental design.

### **Chemistry and Biochemistry**

Research programs include synthetic work on natural products, medically active agents, novel ligands, new catalysts, luminescent materials, photocatalysts, supramolecular and metallocsupramolecular compounds, molecular magnetism, molecular recognition, stabilization of reactive intermediates, solar energy conversion and electrically conducting polymers. Biochemical research includes studies of enzymology and molecular biology of bacterial metabolism, and studies on problems involved in anticancer therapy. Physical, analytical and electrochemical research includes studies of colloids and surfaces, electrode modification through thin film surface deposition, MALDI mass spectrometry and characterization of the electrical properties of polymers

and other materials. Theoretical studies involve both a major computational program applying molecular orbital theory to a variety of problems.

## Earth and Environmental Sciences

Department research has a strong orientation toward the application of geochemistry, oceanography, geophysics and paleobiology to earth resources and the environment. Current research interests include analysis and modeling of geologic deformational structures, biostratigraphy of accreted terranes of the Pacific Northwest and the middle Permian of West Texas, sedimentology, paleoclimatology, hydrology, fluvial geomorphology, environmental health, and plate tectonics.

## Mathematics

**Algebra:** homological theory of commutative Noetherian rings; noncommutative algebra using geometric methods: symbolic computations.

**Differential Equations, Integral Equations and Dynamical Systems:** geometric study of integrable Hamiltonian systems; stability and instability of solitary waves; nonlinear dispersive waves; free boundary problems related to phase transition and multi-fluid flow; stochastic differential equations; control theory.

**Cooperative Game Theory:** semivalues, least square values, properties, potentials and computation; the inverse problem.

**Geometry:** birational algebraic geometry and Mori theory; differential geometry and inverse spectral geometry; finite geometry related to nonassociative division algebras.

**Mathematical Biology:** mathematical modeling of microbial populations, biofilms and competition dynamics; population biology and epidemiology; neuronal dynamics.

**Mathematical Statistics, Probability Theory and Stochastic Process:** multivariate analysis, statistical inference, sample survey and statistical process control; stochastic processes and applications to stochastic differential equations, random graphs, path integrals, quantum mechanics.

**Mathematical Education:** mathematics program development, impact of reform mathematics learning strategies on mathematics teaching, mathematics problem solving for teaching.

**Numerical Analysis:** numerical solutions to ordinary and partial differential equations; moving grid, multigrid and multilevel adaptive methods; fluid dynamics (mechanics); numerical simulation and scientific computation; numerical combustion; software development.

## Physics

Current research in the department is primarily in the areas of condensed matter physics, materials science and high energy physics. The theoretical condensed matter group is engaged in cluster, electron transport, electronic structure, molecular dynamics and path integral computations having relevance to the chemical, electrical and magnetic properties of surfaces, metals and semiconductors. The experimental condensed matter group is engaged in studies of diamond coatings, magnetic multilayers, metals, semiconductors and surfaces using electron, positron, optical and magnetic resonance spectroscopies. The experimental high energy group is involved in collider experiments at Fermilab, Brookhaven Laboratory and CERN to study QCD and to search for supersymmetry and other physics beyond the standard model. Other active research areas include high energy theory, optics, parallel computing and statistical physics.

## Psychology

Expertise and research activity include animal behavior, animal and human learning, cognitive processes, social psychology, psychobiology and developmental psychology. Current research interests include group brainstorming, verbal memory and neuropsychology, applied psychological measurement, pain systems, decision processes, naturalistic social cognition, stress, genetic and

hormonal determinants of aggressive and defensive behaviors and parent-offspring interactions, sea turtle behavior, and infant mental representation of objects.

## Science Education

The Master of Arts in Interdisciplinary Science (MAIS), a 36 credit hour degree program without a thesis requirement, was designed and developed by science teachers for science teachers. The program will help science educators strengthen and update their knowledge of content in two or more of the following cognate areas: biology, chemistry, earth & environmental sciences, mathematics, and physics. In addition to enhancing content knowledge, the courses will help educators develop teaching strategies that lead to improved student learning, implement high quality instructional materials, and develop skills in using various strategies for assessing student learning. The MAIS degree will serve the needs of classroom teachers, content-area and staff development specialists, curriculum developers, program directors, school administrators, college/university faculty, and educators from informal science institutions who have responsibility for designing, delivering, evaluating, and/or continuously improving standards-based science, mathematics, and technology instruction for students, prekindergarten through the undergraduate degree.

While engaging in the coursework, educators will become learners themselves to deepen their own mastery of scientific and/or mathematical content. The laboratory-based learning activities in the program will help science educators see teaching as less a matter of knowledge transfer and more as an activity of facilitation in which knowledge is generated, content is investigated in depth, and meaning is developed from experience. Graduates of the program will take their place as master science educators who are recognized as proven practitioners in delivering rigorous and relevant instruction and are valued as effective coaches, mentors, and teacher trainers.

## Programs

### Master of Science Degrees

Biology

Chemistry

Earth & Environmental Sciences (Both Thesis and Non-thesis)

Mathematics

Physics

Psychology

### Master of Arts Degree

Interdisciplinary Science (Non-thesis)

### Doctoral Degrees

Chemistry

Experimental Psychology

Physics and Applied Physics

Quantitative Biology

Mathematics

Environmental and Earth Sciences

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
    - Architecture
    - Landscape Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Architecture

### Dean **Donald Gatzke**

### Associate Dean **David Jones**

Web [www.uta.edu/architecture/](http://www.uta.edu/architecture/)

Email [soa@uta.edu](mailto:soa@uta.edu)

Phone 817.272.2801

Fax 817.272.5098

203 Architecture Building  
**601 W Nedderman Dr**  
Box 19108, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Architecture

**Kathryn Holliday**  
**Heath Macdonald**  
**Kevin Sloan**  
**Bijan Youssefzadeh**

#### Associate Dean

**David Jones**

#### Professor

**Edward Baum**  
**Robert Hamilton**  
**Craig Kuhner**  
**John McDermott**  
**Madan Mehta**

#### Associate Professor

**George Gintole**  
**David Hopman**  
**John Maruszczak**  
**Steven Quevedo**

#### Senior Lecturer

**Bill Boswell**

#### Lecturer

**Ogden Bass**

#### Landscape Architecture

#### Associate Professor

**Pat Taylor**

---



## Graduate Advisors

### Cheryl Donaldson

Architecture, M.ARCH.  
Architecture, Non-Degree Seeking

### David Jones

Architecture, M.ARCH.

### Pat Taylor

Landscape Architecture, M.L.A.

### Bijan Youssefzadeh

Architecture, M.ARCH.  
Architecture, Non-Degree Seeking

## Programs

### Mission and Philosophy

### History and Overview

### Accreditation

### Scholastic Activity and Research Interests of the Faculty

### Special Programs and Opportunities

## Programs

- [Master of Architecture](#)
- [Master of Landscape Architecture](#)

## Mission and Philosophy

The mission of the graduate Architecture and Landscape Architecture programs is to prepare students for sustained contributions and leadership in the design professions. This mission occurs in partnership with the larger University. Together the programs and the University share the aim of educating broadly to the demands of a complex society and, more specifically, to the demands of sophisticated and changing professions.

## History and Overview

Architecture was first taught at what is now The University of Texas at Arlington in the early 1940s as a two-year, non-degree program within the School of Engineering. In 1968, with the support of professional architects in the Dallas/Fort Worth area, architecture became a department of the College of Liberal Arts, granting the degree of Bachelor of Science in Architecture. The department prospered, and by 1973 a decision was made to establish a separate school of architecture based on a four-year undergraduate program with a two-year master of architecture program as the professional degree.

By 1978, the School of Architecture and Environmental Design (as it was named in 1974) had an enrollment of more than 1,000 students with 31 full-time faculty. Four programs were included at that time: architecture, interior design, landscape architecture, and city and regional planning. Subsequently, planning moved to the Institute of Urban Studies. In 1989, the school was renamed the School of Architecture.

Architecture and landscape architecture are seen as both the means and the goal of the education we offer. As *means*, our fields provide a ready path to the larger domain of ideas, history and the human condition. Architecture was seen, after all, as one of the essential liberal arts during the Renaissance. As *goals*, our fields call upon us to learn specific professional knowledge and skills they focus our attitudes and abilities to produce tangible, concrete things. This demand that we alternately widen and narrow our vision is one of the great strengths of the fields and is one source of their effectiveness as courses of study.

Within a broad curriculum, design as a discipline and a process is emphasized. Students are encouraged to give rich visual and material substance to both theoretical and pragmatic ideas. The context for design at UT Arlington centers on the contemporary urban condition, an approach

appropriate for a school at the heart of a diverse, expanding and internationally oriented region like Dallas/Fort Worth.

The school's location at the center of the Dallas/Fort Worth area is especially important for students of architecture and landscape architecture. Almost every cultural, social and professional opportunity is nearby. The urban setting serves as a laboratory to observe the issues that confront current design and to test the proposals put forward. Built work by many of the foremost contemporary architects and landscape architects may be experienced and studied firsthand. Kahn, Pei, Wright, Johnson, Meier, Legoretta, Rudolph, Giurgola, Barnes, Predock, Holl, KPF, Kiley and Walker all have major projects here.

The School of Architecture offers large and up-to-date facilities for research and study. Constructed in 1984, the Architecture Building houses studios, classrooms and offices in addition to a CAD laboratory, a photography studio, a materials shop, a slide library and the Architecture and Fine Arts Library, with 40,000 books and 190 periodicals. The UT Arlington Libraries contains more than 1 million volumes, and students have access to The University of Texas System Library, which house 12 million volumes.

The School of Architecture has an enrollment of approximately 1,000 students, of whom about 160 are graduate students. They come from all parts of the United States and the world; more than 20 percent are international students. About one-third of the graduate students are women.

In terms of recognition of quality, 134 School of Architecture students have received awards in 63 major design or research competitions over the last 10 years, most at the national or international level. This unsurpassed record of competitive accomplishment reflects the education focus of the school. Developed student abilities, along with a tradition of integrating work and academic experience, give UT Arlington graduates ready entry and advancement in the professional world.

### **Accreditation**

The school offers the Master of Architecture and the Master of Landscape Architecture as first professional degrees in the respective programs. The former is accredited by the National Architecture Accrediting Board and the latter by the Landscape Architecture Accrediting Board. The M.Arch. and the M.L.A. taken as second, or post-professional degrees, do not carry professional accreditation.

### **Scholastic Activity and Research Interests of the Faculty**

The faculty-full-time, adjunct and part-time-are involved in their areas of academic and professional interest. This takes many forms: built projects, design studies and competitions, scholarly writing and applied research. This work enriches the teaching mission and provides contributions to the larger community. For a detailed listing of faculty activity, see the **Faculty Catalog**, available from the School of Architecture.

### **Special Programs and Opportunities**

Visiting faculty members are an integral part of the graduate program at UT Arlington. Noted teachers from other schools in the United States and abroad as well as distinguished practicing designers offer advanced studios and courses each year. Thus, students have access to both a core of permanent faculty members and to a changing spectrum of approaches and values. In addition to on-campus coursework, graduate students may study and travel abroad as an integrated part of the curriculum. The school maintains semester-long, full-credit student exchanges during the academic year with architecture schools at the Universities of Barcelona (Spain,) Lund (Sweden,) Innsbruck (Austria,) and Cottbus (Germany.) During the summer, there is a full-credit, five-week travel program to Rome, Florence and Verona, Italy.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
    - Social Work - MSSW & PhD
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Social Work

### Dean **Scott Ryan**

Associate Dean **John Bricout**  
Associate Dean **Debra Woody**

Web [www.uta.edu/ssw/](http://www.uta.edu/ssw/)  
Email [sswadmissions@uta.edu](mailto:sswadmissions@uta.edu)  
Phone 817.272.3181  
Fax 817.272.5229

Social Work Complex Building A  
**211 S Cooper St**  
Box 19129, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Social Work

**Yvonne Butler**  
**Noelle Fields**  
**Janet Finch**  
**Schnavia Hatcher**  
**Michael Killian**  
**Anne Nordberg**

**Assistant Professor in Practice**  
**Jane Hickerson**

**Associate Dean for Research & Community Outreach**  
**John Bricout**

**Associate Dean of Academic Affairs**  
**Debra Woody**

**Professor**  
**Beverly Black**  
**Doreen Elliott**  
**Rebecca Hegar**  
**Richard Hoefler**  
**Ski Hunter**  
**Catheleen Jordan**  
**Vijayan Pillai**  
**Phillip Popple**  
**Maria Scannapieco**

**Associate Professor**  
**Randall Basham**  
**Norman Cobb**  
**Peter Lehmann**  
**Diane Mitschke**  
**Sung Moon**  
**Alexa Smith-Osborne**

#### **Assistant Professor**

[Gail Adorno](#)  
[Joan Blakey](#)  
[Courtney Cronley](#)  
[Elissa Madden](#)  
[Regina Praetorius](#)  
[Katherine Sanchez](#)  
[Eusebius Small](#)  
[Larry Watson](#)

#### **Professor Emeritus**

[James W Callicutt](#)  
[Wayne Duehn](#)  
[Peter G Gaupp](#)  
[Santos Hernandez](#)  
[Pedro J Lecca](#)  
[John J Litrio](#)  
[Nazneen Mayadas](#)  
[Charles Mindel](#)  
[Richard Schoech](#)  
[M Coleen Shannon](#)  
[Fernando G Torgerson](#)  
[Thomas Watts](#)

---

### **Graduate Advisors**

[Nancy Ashenart](#)  
*Social Work, Ph.D.*

[Randall Basham](#)  
*Social Work, M.S.S.W.*

[Beverly Black](#)  
*Social Work, Ph.D.*

#### **Mission and Philosophy**

#### **History and Overview**

#### **Accreditation**

#### **Scholastic Activity and Research Interests of the Faculty**

#### **Programs**

### **Mission and Philosophy**

The mission of the UT Arlington School of Social Work is to advance knowledge, pursue excellence, provide leadership and service for enhancing well being, and to promote social and economic justice and cultural competence with diverse cultures.

### **History and Overview**

The School of Social Work was established as the Graduate School of Social Work in 1967 by an act of the Texas Legislature. It became the School of Social Work in 1991 when the University's undergraduate social work program in the College of Liberal Arts merged with the school's graduate program.

More than 4,000 students have earned degrees at the school and many hold key management positions in public agencies and nonprofit organizations nationwide. Currently, the school has a diverse student body of approximately 600 M.S.S.W. graduate students and 60 Ph.D. students. Many of these students also hold full- or part-time positions in public agencies and nonprofit organizations.

One distinguishing feature of the school is its location in the heart of the Dallas-Fort Worth Metroplex, a rich urban laboratory of more than 150 cities with a population over 4.5 million. This

complex social arena offers a wide array of opportunities for student projects, field placements and employment. Social work faculty, staff and students work on "real-life" social problems in cooperation with city governments, public agencies and nonprofit organizations.

## Accreditation

The Council on Social Work Education has fully accredited the M.S.S.W. program. Accreditation is an important consideration for students because many professional social work positions require a degree from a CSWE accredited program. Academic credit for life experience and previous work experience is not given.

## Scholastic Activity and Research Interests of the Faculty

School of Social Work faculty engage in research and community-service projects that enhance the effectiveness of the programs of public and nonprofit social-service organizations, that promote social justice and equality, and that extend the body of knowledge about social issues. Research topics span the broad range of social-work issues, including feminist theory, minority rights, child abuse, mental illness, ethics, aging, sexual abuse, community development, lesbian and gay persons, marital and family therapy, family violence, clinical assessment, stalking, constructivism, cognitive-behavioral treatment efficacy, adoption, siblings, foster care, African American fathers, substance abuse, social policy, and evaluations of state and federal child-welfare and community-service programs.

## Programs

The School of Social Work currently offers two graduate programs of study: the Master of Science in Social Work (M.S.S.W.) and the Ph.D. The Ph.D. program offers two options: the Ph.D. in Social Work or a specialty in comparative social policy, in collaboration with La Universidad Autonoma de Nuevo Leon, that is taught in Texas and Mexico and requires fluency in English and Spanish. Degrees are awarded from both universities.

The school offers distance education M.S.S.W. programs in cooperation with other universities across the state. More than 400 students have graduated from such programs. Courses are also offered via the Internet and telecommunication for local students and those in distance education programs.

The school also offers training, research and service opportunities to faculty and students through its centers and other programs. The Judith Granger Birmingham Center for Child Welfare provides support and graduate training to current and potential child-welfare workers and supports faculty and student research on child-welfare issues. The Community Services Center is an instructional facility that provides a university-community partnership addressing community issues. The partnership enables university students, faculty and neighborhood organizations to work together to tackle complex socioeconomic issues facing the neighborhoods that surround them, such as poverty, domestic violence, homelessness and community revitalization. The purpose of the center is twofold: to provide professional training for graduate students and to provide professional services to the community. Community development interns conduct needs assessments, write grant proposals, design new programs, conduct evaluations, perform research and organize action groups. Community clinic interns provide affordable counseling for children, adolescents and families. Counseling services include individual counseling, marriage counseling, premarital counseling, family therapy, group counseling, anger control therapy, and social skills training. The community clinic also provides graduate interns an opportunity to conduct research programs in the area of counseling. The Center for Research, Evaluation and Technology involves students and faculty in program evaluations for local social service agencies and in the development of new and innovative ways to support human services practice. The Professional Development Program provides continuing education seminars for social work practitioners and other human services professionals. The seminars provide the continuing education units necessary for license renewals.

The school hosts an annual conference for students, alumni and community professionals.

[www.uta.edu/ssw](http://www.uta.edu/ssw)

Published in June of 2013. This catalog supersedes the **2012-2013 Graduate Catalog**.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
    - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Urban and Public Affairs

### Dean [Barbara Becker](#)

Web [www.uta.edu/supa/](http://www.uta.edu/supa/)  
Phone 817.272.3071  
Fax 817.272.5008

511 University Hall  
[601 S Nedderman Dr](#)  
Box 19588, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### City and Regional Planning

**Graduate Advisor**  
[Karolyn Field](#)

**Program Director**  
[Ivonne Audirac](#)

**Professor**  
[Ardeshir Anjomani](#)  
[Barbara Becker](#)  
[Jianling Li](#)

**Associate Professor**  
[Enid Arvidson](#)  
[Carl Grodach](#)

**Assistant Professor**  
[Karabi Bezboruah](#)  
[Yekang Ko](#)  
[Andrew Whittemore](#)

#### Interdisciplinary Studies

**Assistant Director**  
[Michael Wollman](#)

**Graduate Advisor**  
[Karolyn Field](#)

**Assistant Professor**  
[Michan Connor](#)  
[James Welch IV](#)

**Clinical Professor**  
[Mike West](#)

#### Public Administration

**Graduate Advisor**



**Karolyn Field**

**Program Director**  
**David Coursey**

**Professor**  
**Richard Cole**

**Associate Professor**  
**Rod Hissong**  
**Maria Martinez-Cosio**  
**Alejandro Rodriguez**

**Assistant Professor**  
**Karabi Bezboruah**  
**Colleen Casey**  
**Darla Hamann**

## **Urban and Public Affairs**

**Mahyar Arefi**  
**Shima Hamidi**

**Graduate Advisor**  
**Karolyn Field**

**Program Director**  
**David Coursey**

**Professor**  
**Ardeshir Anjomani**  
**Richard Cole**

**Associate Professor**  
**Enid Arvidson**  
**Rod Hissong**  
**Maria Martinez-Cosio**  
**Alejandro Rodriguez**

**Assistant Professor**  
**Colleen Casey**  
**Darla Hamann**

---

## **Graduate Advisors**

**Ardeshir Anjomani**  
*Urban Planning & Public Policy, Ph.D.*

**David Coursey**  
*Public & Urban Administration, Ph.D.*

**Karolyn Field**  
*City & Regional Planning, M.CIRP.*  
*Public & Urban Administration, Ph.D.*  
*Public Administration, M.P.A. On Campus.*  
*Urban Affairs, M.A.*  
*Urban Planning & Public Policy, Ph.D.*

**Anthony Valdez**  
*City & Regional Planning, M.CIRP.*  
*Public & Urban Administration, Ph.D.*  
*Public Administration, M.P.A. On Campus.*  
*Urban Affairs, M.A.*  
*Urban Planning & Public Policy, Ph.D.*

**Mission and Philosophy**

**History and Overview**

## Accreditation

### Scholastic Activity and Research Interests of the Faculty

#### Programs Overview

- [Degree Programs](#)
- [Master's Programs](#)
- [Certificate Programs](#)
- [Ph.D. Programs](#)

## Mission and Philosophy

The mission of the School of Urban and Public Affairs is to conduct basic and applied research into urban problems and public policy, to provide services in support of public and nonprofit agencies, and to educate and train students for public service careers.

## History and Overview

SUPA was established in 1967 as the Institute of Urban Studies by an act of the Texas Legislature. The institute's mandate was to offer Texas city and county governments and other public agencies high-caliber, university-based research, training and other technical services. In 1990, after significant expansion of its staff and programs, the organization became the School of Urban and Public Affairs. The institute continues to operate as a vital part of the school.

SUPA is the state's only university-based center for applied research and service in urban affairs. It is called upon routinely to study and recommend solutions for problems confronting government agencies, nonprofit organizations and private industry.

During its more than 40 years of existence, SUPA has conducted hundreds of studies on such topics as transportation, housing, local economic development, public safety, corrections, education, human services, child care and regional governance. Its reports are included in the collections of virtually every major library in Texas and have been adopted as texts at many colleges and universities.

Within SUPA is the Institute of Urban Studies that is a primary source of information and advice in such matters as computer applications in urban management, home rule charters, redistricting, inter-local contracting, economic development, personnel management, revenue administration, land appraisal, zoning and land-use issues. SUPA is active in training local government officials and in consulting on service projects for governmental agencies worldwide. Urban professionals rely on SUPA for consultation and guidance in accomplishing such goals as urban revitalization, pollution control, conservation, and facility planning and siting.

SUPA uses the most advanced computers, data collection and analysis techniques in conducting research, and its more than 20 faculty and staff draw upon their rich and diverse educational and cultural backgrounds. One distinguishing feature of SUPA is its location in the heart of the Dallas-Fort Worth Metroplex, a rich urban laboratory of more than 200 cities with a total population of approximately 6 million. This complex urban arena offers a wide array of opportunities for student projects, internships and employment. SUPA faculty, staff and students work on "real-life" urban and public affairs projects in cooperation with city governments, public agencies and nonprofit organizations through the school's institutes and centers.

## Accreditation

The School of Urban and Public Affairs is one of only approximately 20 in the country having both its Master's of Public Administration and its Master's of City and Regional Planning programs fully accredited by their respective accrediting agencies.

The Master's of City and Regional Planning is officially recognized and accredited by the Planning Accreditation Board that accredits North American planning programs on the basis of a strict and extensive set of criteria rooted in planning knowledge, skills, and values. Students enrolled in accredited programs are eligible for certain national scholarships, and graduates of accredited programs may qualify for certification by the American Institute of Certified Planners after fewer years of experience than graduates of nonaccredited programs.

The Master's of Public Administration degree is accredited by the National Association of Schools of Public Affairs and Administration that requires public administration programs to meet strict standards for faculty qualifications, curriculum content, admissions and program requirements, student composition and services, budget and facilities. Accreditation enhances the program's national reputation and opens doors and provides opportunities for students applying for Texas-based scholarships and nationwide positions.

SUPA was ranked as one of the best programs in the nation by U.S. News & World Report in 2008.

## **Scholastic Activity and Research Interests of the Faculty**

SUPA faculty are actively engaged in research and community service projects that benefit local jurisdictions, public and nonprofit agencies with expertise that is beyond the normal scope of their particular services and resources. Typical projects include revitalization studies for inner-city neighborhoods, development plans for central business districts, economic development strategies for municipalities, inter-local contracting studies, and assessments of service delivery alternatives in communities and school districts.

The broad range of faculty research interests primarily focuses on local issues and provides support for local officials and urban professionals, but it also includes basic research into urban problems and public policy that is published in national journals and used in university texts. Research topics include such urban affairs issues as urban theory, development, management, politics, social welfare policy, social service administration and minority relations; such planning issues as urban design, land use analysis, environmental planning, economic development, community service and development, focus group research and group facilitation; and such public administration issues as public management, intergovernmental relations, entrepreneurship in government, education and economic development.

## **Programs Overview**

### **Degree Programs**

Master's of Arts in Urban Affairs  
Master's of City and Regional Planning  
Master's of Public Administration  
Ph.D. in Public and Urban Administration  
Ph.D. in Urban Planning and Public Policy

SUPA participates in dual-degree programs with the schools of Architecture, Nursing and Social Work. It participates with the colleges of Engineering and Science in an interdisciplinary program leading to Master's and Doctoral degrees in environmental science and engineering.

### **Master's Programs**

#### **Urban Affairs**

The Master of Arts in Urban Affairs prepares students for policy and/or management positions in local government, regional government, nonprofit and private sector consulting and for other professional positions in economic development, social planning, community organizing, and urban journalism.

The program is organized around public policy issues with emphasis on the problems and questions related to life in urban communities. Because urban issues are complex and require the understanding and skills of many disciplines, the program is interdisciplinary in character, curriculum content, teaching staff, and enrollment. The degree is built around an urban core with students choosing a policy or non-profit oriented concentration.

### **City and Regional Planning**

The MCRP program prepares students for careers as professional planners with public, private and nonprofit organizations. It does this by training students to apply planning theory, knowledge, techniques, and skills to “real world” planning problems through coursework, studios, and internship opportunities.

UTA’s City and Regional Planning Master’s Degree Program is accredited by the [Planning Accreditation Board](#) (PAB). The program’s mission, goals and objectives, and accreditation efforts are shaped in consultation with the MCRP Advisory Board composed of alumni and area practitioners.

### **Public Administration**

Public Administration is concerned with the formulation, analysis, negotiation, and implementation of democratically responsible collective action. With an interdisciplinary focus, this program gives special emphasis to the urban community and the special challenges of public managers who serve in urban areas. The curriculum is designed to develop leadership capacity, understanding of the political, social, and economic characteristics of today’s urban environment and the ability to apply current theories of management and analysis to difficult management issues. The program is meant as preparation for those entering management careers in government for the first time or as career development for those already employed who are seeking upward mobility in public management. The Master of Public Administration is a joint program of the School of Urban and Public Affairs and the Department of Political Science.

The MPA degree at the School of Urban and Public Affairs is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA), and the curriculum conforms to NASPAA standards.

### **Certificate Programs**

SUPA offers certificate programs in Development Review, Geographic Information Systems, Public Budgeting and Financial Management and Urban Non-Profit Management, designed to provide skills and proficiency in highly specialized areas. Students enrolled in graduate degree programs at UT Arlington as well as students not enrolled in graduate degree programs are eligible to apply for these certificate programs. Students who are already enrolled in a graduate degree program at U.T. Arlington need only declare their intent to enroll by contacting their academic advisor. No prerequisites are required for these students. Those desiring to enroll in a certificate program but who are not currently enrolled in a graduate program may do so by applying to UT Arlington as a non-degree seeking special student. Upon completion of all requirements, a certificate of completion is awarded by the University. Information on all certificate programs can be found below by clicking on the certificate of interest.

### **Ph.D. Programs**

#### **Urban Planning and Public Policy Program**

The UPPP Ph.D. program requires a minimum of 48 credit hours beyond the master’s degree, including 39 credit hours of coursework and a minimum of 9 dissertation credit hours. The 39 credit hours of coursework include: 6 hours of leveling courses, 9 hours in the required core of urban planning and public policy, 6 hours of methods courses and 18 hours of elected specialization courses. Courses and credit hours may be waived for students with relevant previous coursework upon approval of the dissertation supervisor and program director.

Coursework in the required core, which covers core knowledge and competencies in planning and policy, as well as the courses in the selected field areas prepares students for the field exam. In

their first semester, students select their committee based on their interests and take a diagnostic exam. The student's committee will then guide their course work, including any extra courses needed based on their diagnostic exam.

### **Public and Urban Administration**

The PUAD Ph.D. has eight required core courses, three required research courses, and a minimum of 9 dissertation credit hours. The eight core courses address the social sciences and public administration literatures critical to the integrative approach of the program. The methods courses include an intermediate quantitative methods course, and a qualitative methods course. Students also enroll in URPA 6301 to guide them in preparing their dissertation proposal. Students select their supervising committee during their first year to help guide them through their comprehensive exams and begin working on their dissertation proposal.

A student can expect to complete the 11 required courses in no more than two academic years. Upon completing them, students sit for their written comprehensive examination. The comprehensive examination is an integrative exam that blends public policy issues with public administration.

Students who completed a Masters in Public Administration may be eligible to waive some coursework and are encouraged to meet with the PUAD advisor.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public Affairs](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Fields of Study

### School of Architecture

[Architecture](#)  
[Landscape Architecture](#)

### College of Business

[Accounting](#)  
[Business Administration](#)  
[Economics](#)  
[Finance and Real Estate](#)  
[Health Care Administration](#)  
[Information Systems & Operations Management](#)  
[Management](#)  
[Marketing](#)

### College of Education and Health Professions

[Educational Curriculum & Instruction](#)  
[Educational Leadership and Policy Studies](#)  
[Kinesiology](#)

### College of Engineering

[Bioengineering](#)  
[Civil Engineering](#)  
[Computer Science and Engineering](#)  
[Electrical Engineering](#)  
[Industrial and Manufacturing Systems Engineering](#)  
[Materials Science and Engineering](#)  
[Mechanical & Aerospace Engineering](#)

### College of Liberal Arts

[Art + Art History](#)  
[Communication](#)  
[Criminology & Criminal Justice](#)  
[English](#)  
[History](#)  
[Linguistics](#)  
[Modern Languages](#)  
[Music](#)  
[Political Science](#)  
[Sociology and Anthropology](#)

### College of Nursing

[Nursing](#)

### College of Science

[Biology](#)  
[Chemistry & Biochemistry](#)  
[Earth and Environmental Sciences](#)

**Interdisciplinary Science**  
**Mathematics**  
**Physics**  
**Psychology**

**School of Social Work**  
**Social Work**

**School of Urban and Public Affairs**  
**City and Regional Planning**  
**Interdisciplinary Studies**  
**Public Administration**  
**Urban and Public Affairs**

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
    - Architecture
    - Landscape Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Architecture

### School of Architecture

Web [www.uta.edu/architecture/](http://www.uta.edu/architecture/)  
Phone 817.272.2801  
Fax 817.272.5098

---

### Degrees / Certificates

**Master's Degrees**  
Architecture, M.ARCH.

---

### Graduate Faculty

[Heath Macdonald](#)  
[Kevin Sloan](#)  
[Bijan Youssefzadeh](#)

**Associate Dean**  
[David Jones](#)

**Professor**  
[Edward Baum](#)  
[Robert Hamilton](#)  
[Craig Kuhner](#)  
[John McDermott](#)  
[Madan Mehta](#)

**Associate Professor**  
[George Gintole](#)  
[David Hopman](#)  
[John Maruszczak](#)  
[Steven Quevedo](#)

**Senior Lecturer**  
[Bill Boswell](#)

**Lecturer**  
[Ogden Bass](#)

---

### Graduate Advisors

[Cheryl Donaldson](#)  
*Architecture, M.ARCH.*  
*Architecture, Non-Degree Seeking*

[David Jones](#)  
*Architecture, M.ARCH.*



**Bijan Youssefzadeh**  
*Architecture, M.ARCH.*  
*Architecture, Non-Degree Seeking*

---

## Department Information

### Courses

# Department Information

## Master of Architecture

### Objective

### NAAB Statement

### Admissions Requirements

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Waiver of Graduate Record Exam (GRE)**
- **Denial of Admission**

### Graduate Teaching Assistant

### Fellowships

### Degree Requirements

- **Professional Degree Program: Path A (3.5 years)**
- **Professional Degree Program: Path B (2 years)**
- **Post-Professional Degree Program: Path C (1 year)**
- **M.C.R.P. and M.Arch. Dual Degree Program**

## Objective

The purpose of the Master of Architecture program is to educate for ultimate leadership positions within the architecture profession.

Design is emphasized as central to the discipline of design deeply informed by history, theory, technology, and the broader cultural setting. Design studios, lecture courses, seminars, and workshops develop the critical mind as well as the visual sensibility.

Architecture and its practice exist within the social fabric. Thus discourse and communication are a vital part of the educational process. Through case studies in studios and courses, students learn to present ideas, and to use and give commentary. Visiting faculty leading practitioners and teachers from other schools provide a rich connection to the world of building and to a variety of views. In addition, international student exchange programs, study-travel courses, and numerous internship opportunities in the Dallas-Fort Worth area connect the learning of architecture with the wider world.

In the United States, most state registration boards require a degree from an accredited degree

program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB,) which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree. The University of Texas at Arlington does not offer the Bachelor of Architecture degree.

The professional program leading to the Master of Architecture degree consists of a sequence of coordinated core courses that introduce and develop architectural knowledge; this is followed by a flexible array of more advanced and speculative course options. The preparation each student brings determines where, in this progression from introductory to advanced work, the program is entered. Path A is for those with a baccalaureate degree but no specific background in architecture; this sequence normally takes 3.5 years to the M.Arch. Path B is for those with a four-year undergraduate baccalaureate degree with a major in architecture; this sequence assumes satisfactory core studies and consists of about two years of more advanced professional studies. Path C is for those who already hold an accredited professional degree in architecture and who wish for a second professional degree; at least one year of advanced work is required.

## NAAB Statement

The [National Architectural Accrediting Board](#) explains the accreditation policy:

"In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB,) which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year or two-year term of accreditation, depending on its degree of conformance with established educational standards.

"Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree."

The complete NAAB Conditions for Accreditation, including Student Performance Criteria, can be found on the NAAB website at [www.naab.org](http://www.naab.org).

## Admissions Requirements

### Unconditional Admission

**Path A:** For unconditional admission to the Path A program, the candidate must meet the following requirements:

- B.S. or B.A. Degree - Hold a 4-year B.S. or B.A. degree from an accredited program.
- GPA of 3.0 - Have a GPA of 3.0 as calculated by the Graduate School.
- GRE score of 1000 - Have a minimum total score of 500 in the verbal and 500 in the quantitative portions of the Graduate Record Exam (GRE).
- 3 Letters of recommendation - Submit three letters of recommendation from sources who are familiar with the applicant's academic record, preferably former professors. (For applicants who have been out of school for an extended period, letters of recommendation may be from professional sources if academic ones are no longer available).
- 200 Word Essay  
Submit a short 200-word personal statement providing evidence of professional or academic goals consistent with the Architecture Program.

- TOEFL Score of 550

For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (TOEFL), or the equivalent score on the computer based test. For otherwise highly qualified candidates, this requirement may be eased.

- Portfolio Submission (Optional)

Submission of a design portfolio is not required. If a candidate does have a portfolio of creative work showing freehand drawings or sketches, painting, graphic design, architectural or furniture design, he/she is encouraged to submit it.

**Path B:** For unconditional admission to the Path B program, the candidate must meet the above requirements, and in addition must:

- Portfolio Submission (required)

Submit a portfolio of design work and/or professional involvement, which shows evidence of design capability on a level expected in the graduate program as determined by the Graduate Architecture Admissions Committee. (Design work produced in an office as an employee carries less weight because of the difficulty in determining the applicant's exact contribution to the work shown). The best indication of probable success in the program is the quality of work demonstrated in the portfolio.

**Path C:** For unconditional admission to the Path C program, the candidate must meet the requirements of the Path A and Path B programs (except the requirement of a B.A. or B.S. degree) and must:

- Professional Architecture Degree

Have a professional architecture degree (B.Arch. or M.Arch. or the international equivalent) from an accredited architecture program.

### Probationary Admission

**Path A:** Candidates who do not meet the criteria for unconditional admission to Path A, will be considered for probationary admission in which they will be required to maintain a grade of B or better in the first 12 credit hours of courses in the program. To be considered for probationary acceptance, the candidate must perform well on four of the following six criteria:

- Undergraduate performance in relevant courses
- Work experience
- GPA
- GRE
- Portfolio review (optional)
- Letters of recommendation

**Path B:** Candidates who do not meet the criteria for unconditional admission to Path B may be considered for probationary admission in which they will be required to maintain a grade of B or better in the first 12 credit hours of courses in the program. And/or they may also be required to take one or more Path A and/or fourth year design studio as determined by the graduate advisor on review of their portfolio before continuing with the Path B design studio sequence.

To be considered for probationary acceptance, the candidate must perform well on three of the following five criteria:

- Undergraduate performance in relevant courses
- GPA
- GRE
- Letters of recommendation
- Portfolio review

**Path C:** Candidates who do not meet the criteria for unconditional admission to Path C, may be considered for probationary admission in which they will be required to maintain a grade of B or better in the first 12 credit hours of courses in the program. To be considered for probationary

acceptance, the candidate must perform well on three of the following five criteria:

- Performance in relevant courses in a program leading to the B.Arch or M.Arch degree.
- GPA
- GRE
- Letters of recommendation
- Portfolio review

Note: Applicants whose native language is not English who do not meet the program's minimum TOEFL score, may be asked to complete extramural training in English, as approved by the program and the Graduate School.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the submission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. All missing documentation must be received before the end of the first semester of study.

### **Deferred Admission**

A deferred admission may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Waiver of Graduate Record Exam (GRE)**

A waiver of the Graduate Record Exam may be considered for a UT Arlington undergraduate who has completed an undergraduate degree in Architecture or Interior Design; the student's GPA must equal or exceed 3.50 in all undergraduate coursework completed at UT Arlington. The GRE waiver may also be extended to other UT Arlington undergraduates who have completed an undergraduate degree at UT Arlington; the student's GPA must equal or exceed a 3.50 in all undergraduate coursework completed at UT Arlington. The final decision to waive the GRE also requires a positive review of completed coursework by the graduate advisor to determine the applicant's readiness to study Architecture.

### **Denial of Admission**

Candidates who do not satisfy the requirements for probationary admission will not be admitted.

## **Graduate Teaching Assistant**

To be considered for a Graduate Teaching Assistant position, the candidate must be admitted without provisional conditions. Candidates whose native language is not English must submit an acceptable score on the Test of Spoken English (TSE-A) before arriving in the United States. GTA positions in architecture are limited and are very competitive.

## **Fellowships**

To be considered for a Dean's Fellowship, the candidate must have a favorable review in most of the evaluation criteria. Candidates must be new students coming to UT Arlington, must have a GPA of 3.0 in their last 60 undergraduate credit hours and any graduate credit hours, and must be enrolled in a minimum of 6 hours in both long semesters to retain their fellowships. Fellowships in architecture are limited and very competitive.

Prospective students are strongly encouraged to contact the Graduate Advisor and discuss their options, the admission process, and how the M.Arch program may fit in their professional plans. Students are also invited to visit the School, sit in on classes, and meet faculty and students at the School of Architecture.

## **Degree Requirements**

## Professional Degree Program: Path A (3.5 years)

For applicants holding a baccalaureate (B.A., B.S.) degree in a subject outside architecture, such as liberal arts, sciences, business, or another profession.

A minimum of 104 credit hours in architectural design, theory, and practice is required of Path A candidates for the professional degree in architecture (M.Arch). Due to the rigor of the program (not unlike any other professional school, law or medicine), students entering this program are advised to discontinue outside employment.

Advancement in Professional Degree Program Path A is predicated upon successful and timely completion of required coursework as well as an annual review of the student's portfolio of design work by the Directors Group of the Architecture Program.

In addition to completing an introductory curriculum beginning in the summer of the first semester of enrollment, students must also complete the Path B core curriculum of 39 credit hours. The core curriculum of this course of study is ARCH 5325, 5326, 5329, 5331, 5333, and 24 hours of advanced studio. Students approved by the Directors Group to substitute a design thesis for the last semester of the required studio sequence must also take ARCH 5363 prior to enrollment in ARCH 5693.

Electives must include at least one course from each of the following categories of courses offered by the school: (a) history and theory (b) technology and practice, and (c) allied disciplines (landscape architecture, urban design, housing, and interior design).

### Suggested Course Sequence: Path A

#### First Year

##### *Fall Semester*

5591 Design Studio I  
5301 Principles of Architecture  
5342 Architectural Graphics I

##### *Spring Semester*

5592 Design Studio II  
5323 Construction I  
5343 Architectural Graphics II  
5303 History of Architecture I

##### *Summer Semester*

5593 Design Studio III  
Elective 3 hours

#### Second Year

##### *Fall Semester*

5594 Design Studio IV  
5324 Architectural Structures I  
5304 History of Architecture II  
Elective 3 hours

##### *Spring Semester*

Advanced Studio 6 hours  
5327 Architectural Structures II  
5329 Computers and Design (or approved alternative)  
Elective 3 hours

##### *Summer Semester*

Advanced Studio 6 hours  
5328 Architectural Structures III  
Elective 3 hours

#### Third Year

##### *Fall Semester*

Advanced Studio 6 hours  
5333 Construction II  
5325 Environmental Control Systems I  
Elective 3 hours

##### *Spring Semester*

5672 Comprehensive Studio 6 hours  
5326 Environmental Controls Systems II  
5331 Professional Practice  
Electives 3 hours

## Professional Degree Program: Path B (2 years)

For applicants holding a baccalaureate degree with a major in architecture. Placement in the graduate curriculum may be adjusted on the basis of previous academic and professional work.

A minimum of 54 credit hours is required for the thesis option or 57 for the design thesis and advanced studio options.

The core curriculum for this course of study is ARCH 5325, 5326, 5327, 5328, 5329, 5331, 5333, 18 hours of advanced studio, and 5693 or 5698 or advanced studio. Students in design thesis option must take ARCH 5395 prior to enrollment in ARCH 5693.

Electives must include at least one course from each of the following categories of courses offered by the School of Architecture: (a) history and theory (b) technology and practice and (c) allied disciplines (landscape architecture, urban design, housing and interior design).

### Suggested Course Sequence: Path B

#### First Year

<i>Fall Semester</i>	<i>Spring Semester</i>
Advanced Studio 6 hours	Advanced Studio 6 hours
5325 Environmental Controls I	5326 Environmental Controls II
5333 Construction II	5329 Computers and Design (or approved alternative)
5327 Structures II	5328 Structures III

#### Second Year

<i>Fall Semester</i>	<i>Spring Semester</i>
Advanced Studio 6 hours	5698 Thesis
5331 Professional Practice	or
5395 Issues in Contemporary Architecture (for design thesis option)	5693 Design Thesis
Elective: 3 hours	or
6 hours (advanced studio option)	Advanced Studio 6 hours
	Electives: 6 hours

## Post-Professional Degree Program: Path C (1 year)

For applicants holding a previous professional degree in Architecture (B.Arch.) from an accredited program. The M.Arch, as a second rather than a first professional degree, does not receive NAAB [Accreditation](#).

Thirty credit hours are required of students in Path C with thesis while 33 hours will be required of students with design thesis or advanced studio options.

A minimum of 18 hours is required in architectural program courses including six hours of history/theory as well as thesis, design thesis, or advanced studio. Students are also required to take an advanced studio which may be waived by student request if design proficiency or equivalent experience has been demonstrated. The remainder of the work will be arranged with and approved by the Graduate Advisor to suit the interests of the student. Courses of study provide for an area of specialization or for advanced general studies.

### Suggested Course Sequence: Path C

<i>Fall Semester</i>	<i>Spring Semester</i>
History/Theory: 3 hours	History/Theory: 3 hours
Advanced Studio: 6 hours	Advanced Studio 6 hours
5363 Design Research (for design thesis option)	or
Elective: 3 hours	5693 Design Thesis
	or
	Electives: 9 hours (for design thesis or Advanced

studio options)  
6 hours (for thesis option)

The School of Architecture offers international study programs in Rome, Italy, Barcelona, Spain, Innsbruck, Lund, Sweden and Cottbus, Germany. The Rome Program, conducted for five weeks each summer by UT Arlington faculty, is open to upper division and graduate students and may be used to satisfy history and elective requirements. The Barcelona, Innsbruck and Lund programs are semester-long exchange programs with universities in these cities, with the normal expectation of both studio and elective credit.

### **M.C.R.P. and M.Arch. Dual Degree Program**

Students in this dual program may earn both the Master of City and Regional Planning and the Master of Architecture degrees in a curriculum of 87 semester credit hours. Applicants must meet the admission requirements of both the M.C.R.P. and the M.Arch. programs. City and Regional Planning students wishing to earn the M.Arch degree will be required to take Path A in the Architecture Program unless they have earned an undergraduate degree in architecture which will allow CIRP applicants to take Path B. Programs of study will follow both master's programs, with all of the 15 credit hours of electives in the M.Arch program to be taken in the MCRP program. In addition to the 36 credit hours of architectural core courses, the remainder of coursework will be in the City and Regional Planning program in the School of Urban and Public Affairs with a required thesis proposal and programs of work to be jointly approved by the City and Regional Planning Program and the Architecture Program. A thesis supervisor should be selected from CIRP or the School of Architecture, and committee members should be selected from both faculties.

Course selection and programs of study should be designed with the assistance of the Graduate Advisors in both programs. Only in special instances may students select the thesis substitute plan of the MCRP program. The successful candidate will be awarded both degrees rather than one joint degree.

## **ARCH Courses**

### **ARCH5101 – DIRECTED STUDY: ANALYTICAL SOFTWARE TUTORIAL**

0 Lecture Hours · 1 Lab Hour

Introduction to software relevant to ARCH 5375, ARCH 5376 and ARCH 5377: Excell Argus.

### **ARCH5191 – CONFERENCE COURSE**

1 Lecture Hour · 0 Lab Hours

Special subjects and issues as arranged with individual students and faculty members. May be repeated for credit as topic changes.

### **ARCH5301 – PRINCIPLES OF ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

A survey study of the interrelationships between society, culture, and architecture. Concurrent enrollment of ARCH 5591 and 5342 required.

### **ARCH5302 – LYRICISM IN ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Concepts and models of architecture that express a philosophy concerning feelings, intuition, and creative spontaneity, emphasizing flowing rhythms and nature-inspired forms.

### **ARCH5303 – HISTORY OF ARCHITECTURE I**

3 Lecture Hours · 0 Lab Hours



History of architecture from pre-history through the Middle Ages. Prerequisite: permission of the instructor.

### **ARCH5304 – HISTORY OF ARCHITECTURE II**

**3** Lecture Hours · **0** Lab Hours

History of Architecture from the Renaissance to the present. Prerequisite: ARCH 5303 and permission of the instructor.

### **ARCH5305 – CITY OF ROME**

**3** Lecture Hours · **0** Lab Hours

History, topography, and monuments of Rome and its environs from its legendary founding in 753 B.C. until the 20th Century, with special emphasis on imperial and papal Rome.

### **ARCH5306 – URBAN DESIGN**

**3** Lecture Hours · **0** Lab Hours

Urban design theory, method, and implementation using contemporary and historic examples.

### **ARCH5307 – THE LIFE OF CITIES**

**3** Lecture Hours · **0** Lab Hours

A look at a series of world cities by situating their architectural context, with a particular focus on the impact of 20th century modernism and postmodernism on city fabric. Prerequisites: ARCH 2303 & 2304 or ARCH 5303 & 5304.

### **ARCH5308 – HISTORY OF URBAN FORM**

**3** Lecture Hours · **0** Lab Hours

The history of cities as physical form, influenced by political, economic, and social forces.

### **ARCH5311 – ARCHITECTURAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A review and analysis of the concepts, philosophy, ideology, and models that promulgated 20th Century architectural design. May be repeated for credit as topics change. Prerequisite: permission of the department.

### **ARCH5314 – HISTORIC PRESERVATION AND RESTORATION**

**3** Lecture Hours · **0** Lab Hours

Concepts and implementation of the restoration and preservation of historic structures and places, including archaeological, bibliographic, legislative, institutional, and physical parameters to the retention and adaptive re-use of significant architecture.

### **ARCH5315 – TOPICS IN ARCHITECTURAL HISTORY**

**3** Lecture Hours · **0** Lab Hours

Courses to explore and present selected topics in architecture and related fields of the Ancient Mediterranean, the Classical World, the Middle Ages, the 19th Century, and the Non-Western Traditions. May be repeated for credit as topics change. Prerequisite: ARCH 2303 and 2304.

### **ARCH5316 – MODERN ARCHITECTURE I 1890 TO 1945**

**3** Lecture Hours · **0** Lab Hours

Origins and development of Modern Architecture in Europe from 1890 to World War II, and its further evolution in Europe and America from 1918 to 1945. Prerequisites: ARCH 2303 and 2304



## **ARCH5317 – MODERN ARCHITECTURE II 1945 TO PRESENT**

**3** Lecture Hours · **0** Lab Hours

Architectural developments in Europe, Asia, and America since World War II. Prerequisites: ARCH 2303 and 2304

## **ARCH5319 – HOUSING DESIGN**

**3** Lecture Hours · **0** Lab Hours

Evolution of housing from the end of the 19th Century to the present with particular emphasis on contemporary design methods, techniques and solutions.

## **ARCH5321 – ADVANCED COMPUTER APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

The study and application of specialized computer programs in environmental design. Prerequisites: ARCH 4329 or 5329 or the equivalent, and permission of the instructor.

## **ARCH5323 – CONSTRUCTION I**

**3** Lecture Hours · **0** Lab Hours

Construction materials and structural concepts as used in buildings. Prerequisite: permission of the instructor.

## **ARCH5324 – ARCHITECTURAL STRUCTURES I**

**3** Lecture Hours · **0** Lab Hours

Statics, strength of materials and simple structural systems in buildings. Prerequisite: permission of the instructor.

## **ARCH5325 – ENVIRONMENTAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Illumination, acoustics, climate controls, mechanical and electrical systems, and their significance in the total design.

## **ARCH5326 – ENVIRONMENTAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Climate controls, mechanical and electrical systems, and their significance in the total design. Prerequisite: ARCH 5325.

## **ARCH5327 – ARCHITECTURAL STRUCTURES II**

**3** Lecture Hours · **0** Lab Hours

Continuation of ARCH 5324 with emphasis on structural theory and systems in wood and steel. Prerequisite: ARCH 5324.

## **ARCH5328 – ARCHITECTURAL STRUCTURES III**

**3** Lecture Hours · **0** Lab Hours

Continuation of ARCH 5327 with emphasis on structural theory and systems in masonry and reinforced concrete. Prerequisite: ARCH 5327.

## **ARCH5329 – TOPICS IN COMPUTERS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

Computer aided design, drafting and graphic techniques as applied to architecture. May be repeated for credit as topics change.

### **ARCH5330 – COMPARATIVE STRUCTURES**

**3** Lecture Hours · **0** Lab Hours

Comparative analysis and design of structural systems and construction techniques, including architectural and economic determinants. Prerequisite: ARCH 5328 or permission of the instructor.

### **ARCH5331 – PROFESSIONAL PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Survey of the administrative functions, and the ethical and legal responsibilities of the architect.

### **ARCH5332 – ENERGY USE AND CONSERVATION IN ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Concepts of the efficient use and conservation of energy and their embodiment in the built environment. Prerequisite: permission of the instructor.

### **ARCH5333 – CONSTRUCTION II**

**3** Lecture Hours · **0** Lab Hours

Advanced construction assemblies and methods, including the principles of cost control. Prerequisites: ARCH 5670.

### **ARCH5335 – ADVANCED PROFESSIONAL PRACTICE II: MARKETING DESIGN SERVICES**

**3** Lecture Hours · **0** Lab Hours

A study of the strategies and methods for marketing professional services. Presented as case studies of architecture, interior design, and landscape architecture firms.

### **ARCH5336 – ADVANCED PROFESSIONAL PRACTICE II: PROGRAMMING AND SITE PLANNING**

**3** Lecture Hours · **0** Lab Hours

The course focuses on project programming and the technical aspects of site design.

### **ARCH5337 – SOILS AND FOUNDATIONS**

**3** Lecture Hours · **0** Lab Hours

Soil classifications, field and laboratory identification, physical properties and load-bearing characteristics, retaining walls and foundations. Prerequisite: ARCH 5328 or permission of the instructor.

### **ARCH5339 – DIGITAL TECTONICS/FABRICATION II**

**3** Lecture Hours · **0** Lab Hours

The conceptualizing and making of objects lying outside the traditional scope of architectural practice, including elements of industrial and product design and the development of working prototypes. Prerequisites: None, although Digital Fabrication I is highly encouraged.

### **ARCH5340 – THE EVERYDAY CITY**

**3** Lecture Hours · **0** Lab Hours

Seminar concerned with the examination of theories and practices about creating place(s) from real existing conditions within the everyday city.

### **ARCH5341 – NOTATIONAL DRAWING**

**3** Lecture Hours · **0** Lab Hours

Seminar concerned with analytical drawing techniques and how to use the sketchbook as a tool and

process for architectural production. Emphasis will be on cultivating drawing strategies that will heighten the ability to make observations through first-hand experience and record them with the correct conventions in order to enable recovery for future use in architectural design.

### **ARCH5342 – ARCHITECTURAL GRAPHICS I**

**0** Lecture Hours · **2** Lab Hours

Architectural drawing, perception, projections, and three-dimensional representation. Concurrent enrollment in ARCH 5591 is required.

### **ARCH5343 – ARCHITECTURAL GRAPHICS II**

**2** Lecture Hours · **4** Lab Hours

A continuation of ARCH 5342 with emphasis on more advanced techniques: composition, tone, shades and shadows, and color.

### **ARCH5344 – CONCEPTUAL DRAWING**

**0** Lecture Hours · **3** Lab Hours

Seminar to explore aspects of conceptual drawing for the architect and the relationship of design ideas in the drawing process.

### **ARCH5345 – DIGITAL CONSTRUCTION**

**0** Lecture Hours · **3** Lab Hours

A workshop exploring video cartography using photography, animation, motion graphics and digital video.

### **ARCH5346 – CONSTRUCTION DRAWINGS I**

**2** Lecture Hours · **4** Lab Hours

The techniques of building construction, the communication of technical information, and the process of preparing contract drawings for construction.

### **ARCH5347 – DIGITAL TECHTONICS**

**3** Lecture Hours · **0** Lab Hours

The focus for this seminar is the examination and exploration of full-scale digital fabrication techniques and methodologies. Completion of ARCH 4343 or ARCH 5339 recommended.

### **ARCH5348 – PRINCIPLES OF ARCHITECTURAL PHOTOGRAPHY**

**2** Lecture Hours · **4** Lab Hours

The use of photography as an investigative and presentation medium in architecture. Emphasis on composition in black and white technique.

### **ARCH5349 – ARCHITECTURE PORTFOLIO**

**3** Lecture Hours · **0** Lab Hours

Seminar concerned with goal toward the production of a personal design portfolio.

### **ARCH5350 – VESSELS**

**3** Lecture Hours · **0** Lab Hours

The design of objects for the post-Industrial Age, including vehicles, furniture, jewelry, household objects, and clothing.

### **ARCH5351 – WILDERNESS: A CONDITION OF MIND**

**3** Lecture Hours · **0** Lab Hours

Changing conceptions of wilderness in Western thought, from ancestral prejudices to recent, revolutionary appreciation. Literary and visual documentation.

### **ARCH5355 – HEMISPHERES**

**3** Lecture Hours · **0** Lab Hours

The study and analysis of Japanese arts and contemporary culture. The arts of ceramics, painting, calligraphy, and sculpture are examined. Prerequisite: departmental approval.

### **ARCH5356 – BASIC AUTOCAD**

**0** Lecture Hours · **3** Lab Hours

Preparation for professional work using AutoCAD and a professional file structure system.

### **ARCH5357 – B. I. M. & VISUALIZATION**

**0** Lecture Hours · **3** Lab Hours

To gain a working knowledge of Autodesk Revit and 3D Studio Max. Prerequisites: ARCH 4356, 5356 or INTD 3329.

### **ARCH5358 – ADVANCED VISUALIZATION**

**0** Lecture Hours · **3** Lab Hours

Exploring Architecture using animation, editing and compositing to produce a professional "Story & FORM" presentation. Prerequisite: ARCH 4356, 5356 or INTD 3329.

### **ARCH5359 – WATERCOLOURS**

**3** Lecture Hours · **0** Lab Hours

Seminar with the intent to explore and experience a variety of watercolour techniques and possibilities.

### **ARCH5361 – ARCHITECTURE AND ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

An overview of sustainable design integrated with natural resource conservation.

### **ARCH5362 – STRUCTURAL SYSTEMS IN BUILDINGS**

**3** Lecture Hours · **0** Lab Hours

An overview of various structural systems including those used in long-span and high-rise buildings. Numerical work limited to the explanation of relevant structural concepts. Prerequisite: ARCH 5324.

### **ARCH5363 – DESIGN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Seminar directed toward the understanding of research methods and the programming of an independent design project, leading to the thesis substitute. Graded P/F/R. Prerequisite: Permission of Graduate Advisor.

### **ARCH5370 – ADVANCED DESIGN STUDIO**

**0** Lecture Hours · **4** Lab Hours

Studio course in the generation and development of architectural ideas in formal and environmental contexts. May be repeated for credit. Two of these courses are equivalent to ARCH 5670.

### **ARCH5375 – PROPERTY AND ASSET REPOSITIONING**

**3** Lecture Hours · **0** Lab Hours

The physical planning and design issues impacting project performance levels and asset appreciation.

### **ARCH5376 – PROPERTY DUE DILIGENCE**

**3** Lecture Hours · **0** Lab Hours

Course addresses physical project data collection techniques.

### **ARCH5377 – ASSET RESTRUCTURING**

**3** Lecture Hours · **0** Lab Hours

The processes of property foreclosure and restructuring.

### **ARCH5381 – PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Internship program including work done through an approved architect's office, designed to give practical experience leading to a broader knowledge of the profession. Placement in offices must be approved, and in some cases may also be arranged by the school. Students may enroll in 5381 for half-time employment or 5681 for full-time employment. Students enrolled in Practicum may also participate in the Intern Development Program of the American Institute of Architects. No more than six total credit hours in Practicum are allowed for degree. Graded P/F/R.

### **ARCH5391 – CONFERENCE COURSE**

**3** Lecture Hours · **0** Lab Hours

Special subjects and issues as arranged with individual students and faculty members. May be repeated for credit as content changes. Prerequisite: Permission of Graduate Advisor.

### **ARCH5395 – TOPICS IN ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Studio, lecture or seminar courses to explore and present special topics in architecture and environmental design. May be repeated for credit as topics change.

### **ARCH5591 – DESIGN STUDIO I**

**0** Lecture Hours · **6** Lab Hours

An intensive studio course in architectonic theory and operations. Emphasis on analytic, conceptual, and manipulation procedures.

### **ARCH5592 – DESIGN STUDIO II**

**0** Lecture Hours · **6** Lab Hours

Continuation of ARCH 5591. Studio course emphasizing the interrelationship of formal/spatial ideas, use, and the building fabric. Prerequisite: ARCH 5591.

### **ARCH5593 – DESIGN STUDIO III**

**0** Lecture Hours · **6** Lab Hours

Continuation of ARCH 5592. Studio course emphasizing the interrelationship of formal/spatial ideas, use, and the building fabric with special attention to the urban context. Prerequisite: ARCH 5592.

### **ARCH5594 – DESIGN STUDIO IV**

**0** Lecture Hours · **6** Lab Hours

Continuation of ARCH 5593. Emphasis on complex building designs in urban environments. Off campus study may be substituted.

### **ARCH5670 – ADVANCED DESIGN STUDIO**

**0** Lecture Hours · **9** Lab Hours

Studio course emphasizing the analysis and design of building aggregations within the urban context. May be repeated for credit.

## **ARCH5672 – ADVANCED DESIGN STUDIO COMPREHENSIVE**

**0** Lecture Hours · **9** Lab Hours

Comprehensive studio course emphasizing the analysis and design of building aggregations within the urban context. May be repeated for credit.

## **ARCH5681 – PRACTICUM**

**6** Lecture Hours · **0** Lab Hours

Internship program including work done through an approved architect's office, designed to give practical experience leading to a broader knowledge of the profession. Placement in offices must be approved, and in some cases may also be arranged by the school. Students may enroll in 5381 for half-time employment or 5681 for full-time employment. Students enrolled in Practicum may also participate in the Intern Development Program of the American Institute of Architects. No more than six total credit hours in Practicum are allowed for degree. Graded P/F/R.

## **ARCH5691 – CONFERENCE COURSE**

**6** Lecture Hours · **12** Lab Hours

Special subjects and issues as arranged with individual students and faculty members. May be repeated for credit. Prerequisite: Permission of Graduate Advisor.

## **ARCH5693 – DESIGN THESIS**

**6** Lecture Hours · **0** Lab Hours

Individual study project conducted by a supervising committee, with program and statement of intent to be filed with the Graduate Advisor during the previous semester. Graded R. Prerequisite: ARCH 5363

## **ARCH5695 – TOPICS IN ARCHITECTURE**

**6** Lecture Hours · **0** Lab Hours

Studio, lecture or seminar courses to explore and present special topics in architecture and environmental design. May be repeated for credit as topics change. Prerequisite: Permission of Graduate Advisor.

## **ARCH5698 – RESEARCH THESIS**

**6** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
    - Architecture
    - Landscape Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Landscape Architecture

School of Architecture

Web [www.uta.edu/architecture/](http://www.uta.edu/architecture/)

Phone 817.272.2801

Fax 817.272.5098

---

### Degrees / Certificates

#### Master's Degrees

Landscape Architecture, M.L.A.

---

### Graduate Faculty

#### Associate Professor

[Pat Taylor](#)

---

### Graduate Advisors

#### [Pat Taylor](#)

*Landscape Architecture, M.L.A.*

---

### Department Information

#### Courses

## Department Information

### Master of Landscape Architecture

#### Objective

#### Admissions Requirements

- **Unconditional Admission**
- **Provisional Admission**
- **Probationary Admission**
- **Deferred Admission**

- **International Student Admission**

**Graduate Teaching/Research Assistantships  
Fellowships and Scholarships  
Degree Requirements**

- **First Professional Degree Program**
- **Advanced Standing**

## **Objective**

The mission of the Program in Landscape Architecture is to educate for ultimate leadership in the landscape architecture profession. This mission requires fostering rigorous scholarly inquiry of the discipline, and the preparation of knowledgeable practitioners.

The Program in Landscape Architecture has the dual objectives of providing students with a core of design and technical skills in combination with experiences in pure and applied research. This duality prepares students for identifying and solving problems in the profession through design and research, and it is a Program focus. The Program in Landscape Architecture also prepares students to enter practice in private, public, academic, and research organizations.

Student preparation is enhanced by specialized coursework taken inside and outside of landscape architecture and by the topic of one's thesis. Students are directed to select thesis committee members early-on and to select specialized courses which reinforce students' areas of primary interest in landscape architecture.

The Program in Landscape Architecture is fully accredited by the Landscape Architectural Accreditation Board of the American Society of Landscape Architects. Graduates from the Program are qualified to sit for the Landscape Architecture Registration Exam which, when successfully passed, qualifies individuals to practice as landscape architects in the State of Texas.

## **Admissions Requirements**

Applicants must meet the general requirements of the Graduate School. A personal interview with the Director, Graduate Advisor or members of the landscape architecture faculty is strongly recommended. Three letters of recommendation are required, and it is suggested that at least two of the letters come from former educators or academic contact. Applicants also are required to submit scores from the Graduate Record Exam (GRE). Average GRE scores of successful applicants since 1998 have been approximately 550 Verbal and 550 Quantitative. Also required is a grade point average (GPA) of 3.00 as calculated by the Graduate School.

Applicants holding first professional degrees in landscape architecture, or in some cases degrees related to landscape architecture (such as architecture, engineering, environmental design, horticulture, interior design, planning, and the like) are required to submit portfolios reflecting the applicants' professional and/or academic experiences and interests. Portfolios are assessed according to proficiency in design, presentation and layout, technical skills, and content, similar to criteria used in design studios.

Applicants who have a weakness in one of the criteria for admission can enhance their credentials with strengths in the remaining criteria.

Applicants can be admitted according to four conditions: Unconditional; Provisional; Probationary; and, Deferred. Applicants who do not meet the criteria of one of these conditions will be denied admission to the Program.

### **Unconditional Admission**

Applicants must possess a bachelor's degree from an accredited college or university. Transcripts from all previous college or university work, along with scores from the Graduate Record Exam (GRE), and three letters of recommendation are required of all applicants. In addition, applicants



should have a minimum Grade Point Average (GPA) of 3.0, as calculated by the Graduate School. Applicants holding the first professional degree in landscape architecture, or a related field, must submit a portfolio.

### **Provisional Admission**

Those who have submitted their applications forms, but whose packets are incomplete, can be admitted provisionally if their GPA meets minimum requirements, and if the Program and the Graduate School have received official transcripts. In this case, incomplete materials could include letters of recommendation, GRE scores, and/or portfolios.

### **Probationary Admission**

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, GRE scores, and GPA), can be admitted on probation, with the condition that they make no less than a B in the first 12 hours of coursework in landscape architecture. Such students must complete no fewer than 9 credits during the semester in which they are on probation.

### **Deferred Admission**

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, GRE scores, and GPA), and/or who have not submitted all of the materials required for unconditional admission, can have their applications deferred for one semester, until outstanding requirements and criteria are met.

### **International Student Admission**

International applicants must meet the Degree Requirements (letters of recommendation, GRE scores, and GPA), and must be admitted in one of the admission categories described above. In addition, applicants whose native language is not English must have a demonstrated speaking ability in English. They also must meet the Program's minimum required score of 575 on the paper exam, or an equivalent score on the computer based- or internet-based tests, on the Test of English as a Foreign Language (TOEFL). International applicants who do not meet the Program's minimum TOEFL score, must complete extramural training in English, as approved by the Program and the Graduate School.

## **Graduate Teaching/Research Assistantships**

To be considered for a Graduate Teaching or Research Assistantship, the candidate must be admitted without provisional conditions. In order to be eligible for teaching assistantships, students whose native language is not English, must complete extramural training in English as approved by the Program and the Graduate School.

## **Fellowships and Scholarships**

To be considered for fellowships or scholarships in the Program the candidate must have a favorable review in most of the evaluation criteria. Fellowships and scholarships in landscape architecture are limited and very competitive. Generally, candidates must be new students coming to UT Arlington, must have a GPA of 3.0 in their last 60 undergraduate credit hours and any graduate hours, and must be enrolled in a minimum of 9 hours in both long semesters to retain their fellowships or scholarships.

## **Degree Requirements**

### **First Professional Degree Program**

The core curriculum for the Program in Landscape Architecture prepares students holding a college degree in a field other than landscape architecture or a related design discipline to complete the requirements for the first professional degree in landscape architecture. The core

curriculum also provides students with the basic equivalent of a bachelor's degree in landscape architecture. For full-time students with degrees from other non-design disciplines, the core usually takes three semesters to complete. For all students, electives must be concentrated in areas of interest which support the student's thesis and/or the student's professional objectives.

An approved degree plan must be submitted no later than the start of the student's second semester of graduate work.

The following coursework is a suggestion to meet the Program's mission. Each student will be counseled, based upon interests and background, to develop an appropriate degree plan.

#### The Core Curriculum

##### **Semester 1**

LARC 5661 Design Studio I  
LARC 5320 Communications for Landscape Architects  
LARC 5301 Site Planning and Development Processes  
LARC 5330 Plant Identification and Ecology  
Total Credit Hours: 15

##### **Semester 2**

LARC 5662 Design Studio II  
LARC 5382 Urban Design Seminar  
LARC 5312 Comprehensive History and Theory  
LARC 5331 Planting Design  
Total Credit Hours: 15

##### **Semester 3**

LARC 5663 Design Studio III: Site Planning  
Landscape Architecture Elective (3 hours)  
LARC 5313 History and Theory of Landscape Architecture II  
LARC 5321 Advanced Communications (or approved substitute)  
Total Credit Hours: 15

After completing 45 credit hours, the first professional degree student is evaluated by means of an academic review and portfolio review by the Graduate Studies Committee. The committee identifies areas of strength and weakness in the student's performance and recommends appropriate action.

Upon completion of the three core semesters, the student is required to develop an area of specialization or primary interest. The student must consult with faculty advisors to complete this step, which includes a preliminary agreement between student and faculty advisors regarding the specialization or primary interest and the appropriate research method to support it. If a student is interested in Advanced Landscape Architecture, for example, a probable program of study could look like this:

#### **Advanced Landscape Architecture**

##### **Semester 4**

LARC 5664 Design Studio IV (CAD experience required)  
LARC 5340 Professional Practice  
LARC 5380 Research Methods in Landscape Architecture  
LARC 5302 Land Development Planning  
Total Credit Hours: 15

##### **Semester Between Academic Year 2 and 3**

LARC 5681 Professional Practicum or  
LARC 5695 Independent Study Abroad or  
LARC 5683 Independent Study Area of Specialization or Controlled Electives  
LARC 5660 Enrichment Design Studio (if necessary)  
Total Credit Hours: 6

### **Semester 5**

LARC 5665 Design Studio V

Advanced or Independent Study in Landscape Architecture (9 hours)

Total Credit Hours: 15

### **Semester 6**

LARC 5698 Thesis

LARC 5294 Master's Comprehensive Examination

Advanced or Independent Study in Landscape Architecture (3 hours)

Total Credit Hours: 11

Minimum Credit Hours Required for Graduation: 92

Students pursuing other primary areas of interest also must consult with appropriate faculty advisors for approval.

## **Advanced Standing**

Students from backgrounds other than landscape architecture or its related fields must complete the 92 credits required in the curriculum. Students with degrees and/or professional experience in fields related to landscape architecture (such as architecture, engineering, environmental design, horticulture, interior design, planning and the like) may apply for advanced standing, allowing them to enter the academic phase (second year) of the curriculum. Advanced standing in these cases requires a minimum of 62 total credit hours for graduation.

Students with first professional degrees in landscape architecture also may apply for advanced standing, allowing them to enter the research (third year) phase of the curriculum. Advanced standing in these cases requires a minimum of 30 total credit hours for graduation.

### **Minimum Program for Advanced Standing**

(For students from fields of study related to landscape architecture)

#### **Semester 1**

LARC 5663 Design Studio III

LARC 5330 Plant Identification and Ecology

LARC 5321 Advanced Communications (or approved substitute)

LARC 5312/5313 Comprehensive History and Theory

Total Credit Hours: 15

#### **Semester 2**

LARC 5664 Design Studio IV (CAD experience required)

LARC 5342 Landscape Technology II

LARC 5332 Planting Design

LARC 5302 Land Development Planning

Total Credit Hours: 15

#### **Semester Between Academic Year 1 and 2**

LARC 5681 Professional Practicum or

LARC 5695 Independent Study Abroad or

LARC 5683 Independent Study Specialization

Total Credit Hours: 6

#### **Semester 3**

LARC 5665 Design Studio V

LARC 5340 Professional Practice

LARC 5380 Research Methods in Landscape Architecture

Study in primary area of interest (3 hours)

Total Credit Hours: 15

#### **Semester 4**

LARC 5698 Thesis

LARC 5294 Master's Comprehensive Examination

Study in specialization (3 hours)  
Total Credit Hours: 11  
Minimum Credit Hours Required for Graduation: 62

### **Minimum Program for Advanced Standing**

(For students with first professional degrees in landscape architecture from LAAB accredited schools)

#### **Semester 1**

LARC 5665 Design Studio V  
LARC 5380 Research Methods in Landscape Architecture  
Specialization Option Courses (6 hours)  
Total Credit Hours: 15

#### **Semester 2**

LARC 5698 Thesis  
LARC 5294 Master's Comprehensive Examination  
LARC 5302 Land Development Planning  
Specialization Option Courses / Independent Study (4 hours)  
Total Credit Hours: 15

Minimum Credit Hours Required for Graduation: 30

## **LARC Courses**

### **LARC5191 – CONFERENCE COURSE IN LANDSCAPE ARCHITECTURE**

1 Lecture Hour · 0 Lab Hours

Special subjects and issues in landscape architecture that may be studied independently under faculty supervision. May be repeated for credit.

### **LARC5294 – MASTERS COMPREHENSIVE EXAMINATION**

2 Lecture Hours · 0 Lab Hours

Must be taken concurrently with Thesis. Directed study, consultation, and comprehensive examination of coursework, leading to and including the thesis. Oral presentation required. Required of all Master of Landscape Architecture students in the semester in which they plan to graduate.

### **LARC5301 – SITE PLANNING AND DEVELOPMENT PROCESSES**

3 Lecture Hours · 0 Lab Hours

Presents the processes and practices of site planning and development, including site inventory, analysis, and assessment of potential building sites. Students examine the natural, cultural, and social systems that affect design decisions, as well as the language and literature of landscape architecture.

### **LARC5302 – LAND DEVELOPMENT PLANNING**

3 Lecture Hours · 0 Lab Hours

The process of land development planning for landscape architects. Detailed expansion of LARC 5301. Uses case studies in land development planning to instruct students in the environmental, economic, legal, and visual issues associated with the land planning process.

### **LARC5312 – HISTORY AND THEORY OF LANDSCAPE ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Traces landscape planning and design from pre-history through Egyptian, Greek, Roman, Islamic and Medieval gardens to Italian, French, and English landscape approaches, culminating in the mid-19th century. Relates landscape design to societal, cultural, technological and belief systems of each period.

Culminates in the contemporary history of the profession from Andrew Jackson Downing to the present day. The growth and development of the profession, professional education, the environmental movement, large scale regional land planning and significant landscape architectural projects of the past century and a half.

### **LARC5313 – HISTORY AND THEORY OF LANDSCAPE ARCHITECTURE II**

3 Lecture Hours · 0 Lab Hours

The contemporary history of the profession from Andrew Jackson Downing to present day. The growth and development of the American Society of Landscape Architects (ASLA), professional education, the environmental movement, large scale regional planning, and significant landscape architectural projects of the past century.

### **LARC5320 – COMMUNICATIONS FOR LANDSCAPE ARCHITECTS**

2 Lecture Hours · 4 Lab Hours

Primary class for the development of graphic and communication skills in landscape architecture. Provides a method for transferring conceptual ideas into legible graphic presentations. Should be taken concurrently with LARC 5661 Design Studio I.

### **LARC5321 – ADVANCED COMMUNICATIONS**

2 Lecture Hours · 4 Lab Hours

Presentation techniques; expansion on graphic thinking and communication presented in LARC 5320.

### **LARC5323 – STUDIO TEACHING**

0 Lecture Hours · 9 Lab Hours

### **LARC5324 – LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL ART SEMINAR**

2 Lecture Hours · 2 Lab Hours

Siting and creating works of art; analysis of the creative processes of the two different-yet-related disciplines; case studies of built works. Communication of ideas through environmental media.

### **LARC5330 – PLANT IDENTIFICATION AND ECOLOGY**

2 Lecture Hours · 4 Lab Hours

Examines the design characteristics and horticultural requirements of a broad palette of plants adapted to the North Texas region. Field trips are required to learn the plants at both ornamental gardens and local ecological communities.

### **LARC5331 – PLANTING DESIGN**

2 Lecture Hours · 4 Lab Hours

Design applications of plant material. Students apply the design problem-solving approach to the detailed aspects of planting design and complete a progressively-more-difficult series of problems to practice techniques and methods of plant manipulation that encompass both the aesthetic and functional objectives of planting design. Prerequisites: LARC 5330; 5661; 5662.

### **LARC5340 – PROFESSIONAL PRACTICE**

3 Lecture Hours · 0 Lab Hours

Ethical, legal, and administrative aspects of the public, private, and academic spectrums of practice in landscape architecture.

### **LARC5341 – LANDSCAPE TECHNOLOGY I**

2 Lecture Hours · 4 Lab Hours

Surveying, site grading, storm water management, vertical and horizontal curves and an overview of the construction documentation process employed by landscape architects.

### **LARC5342 – LANDSCAPE TECHNOLOGY II**

2 Lecture Hours · 4 Lab Hours

Examines hardscape materials and methods typical to the practice of landscape architecture, through readings, examinations, design detail exercises, and the creation of a complete set of construction documents. Construction site tours are required with area industry professionals. Prerequisites: LARC 5341.

### **LARC5344 – PARK AND RECREATION DESIGN AND PLANNING**

2 Lecture Hours · 2 Lab Hours

History, data collection, program formulation, and design principles for public and private park and recreation systems and sites. Includes management objectives, operations and maintenance, and public input as planning components.

### **LARC5350 – LANDSCAPE ARCHITECTURE COMPUTER APPLICATIONS**

2 Lecture Hours · 4 Lab Hours

Examines various computer applications currently used in office practice. Computer applications used for office management, site analysis, design development, construction documentation, and cost estimating. Introduction to computer aided design applications and the underlying theories of application.

### **LARC5351 – ADVANCED COMPUTER AIDED DESIGN**

2 Lecture Hours · 4 Lab Hours

Focus is on a methodology for designing and illustrating with computer graphics that is very compatible with the design and production workflow of most landscape architecture offices. All work is done in an AutoCAD environment using AutoCAD for modeling and Accurender for re-rendering still images, interactive panoramas, and both viewpoint and key-frame animations. Photoshop is used for the creation of texture maps, image manipulation and photo-montage. Emphasis is on working intuitively and creatively. Prerequisites: LARC 5350.

### **LARC5368 – DESIGN PRACTICUM**

3 Lecture Hours · 0 Lab Hours

An internship program which includes approved work done in a landscape architect's office or one of the related design fields. The purpose of the practicum is to provide students with practical design experience. Students may enroll in 5368 for half-time employment or 5668 for full time employment.

### **LARC5380 – RESEARCH METHODS IN LANDSCAPE ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Theories of practical research and methods of applying them as they relate to landscape architecture. Includes research program development, data collection and analysis, thesis proposal writing, and research tools and techniques. Emphasis is on qualitative methods. Prerequisites: LARC 5661, 5662.

### **LARC5382 – URBAN DESIGN SEMINAR**

3 Lecture Hours · 0 Lab Hours

Advanced presentation and discussion of issues related to contemporary and historic urban design. Students actively present and lead informed discussions on topics such as population density, environmental management, cultural landscapes, land/water intersections, land-use patterns, circulation and legibility, human communities as living organisms, public art, urban form, and urban/rural interchange. Field trips required.

### **LARC5391 – CONFERENCE COURSE IN LANDSCAPE ARCHITECTURE**

3 Lecture Hours · 0 Lab Hours

Special subjects and issues in landscape architecture that may be studied independently under faculty supervision. May be repeated for credit.

### **LARC5395 – SELECTED TOPICS IN LANDSCAPE ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Selected studio or lecture course offerings in specific areas of expertise or interest. Course allows the program the flexibility to address the ever-changing needs of students and the profession by offering courses beyond the scope of the core curriculum. May be repeated for credit.

### **LARC5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Independent research and presentation of findings under the direction of a supervising committee. The findings of the thesis should extend the boundaries of the professional discipline by either presenting new and unique ideas or information, or by interpreting existing knowledge from a different perspective.

### **LARC5623 – STUDIO TEACHING PRACTICUM**

**0** Lecture Hours · **9** Lab Hours

Students spend one semester as a teaching assistant in the studio sequence under the supervision of the assigned faculty member. They will observe the methods employed in the studio and prepare a comprehensive evaluation of the studio in conjunction with the instructor. The students will oversee one short studio project and evaluate its success or failure based on the criteria learned in LARC 5322 and the goals and objectives of the test project.

### **LARC5660 – ENRICHMENT DESIGN STUDIO**

**0** Lecture Hours · **9** Lab Hours

Review of the principles and processes of design presented in Design Studios I, II, and III. Provides an opportunity for students with weak design and graphic skills to improve those skills to meet requirements for Design Studio IV. Course can use design competitions as projects.

### **LARC5661 – DESIGN STUDIO I**

**3** Lecture Hours · **9** Lab Hours

A design course for students with no background in landscape architecture or design. Outlines the site planning and site design decision-making process. Focuses on providing students with the verbal, intellectual, and graphic tools necessary to successfully tackle a design problem and bring it to a schematic level of completion. It is highly recommended that this course be taken concurrently with LARC 5320.

### **LARC5662 – DESIGN STUDIO II**

**0** Lecture Hours · **9** Lab Hours

A continuation of 5661. Basic design principles and their application to three-dimensional spaces. Examines how humans occupy exterior space and combines this information with the principles of design to create garden scale models. Models are used as a medium for design expression. Landscape character, design simulation, landscape media, landscape context, and human spatial experience are included.

### **LARC5663 – DESIGN STUDIO III: SITE PLANNING**

**0** Lecture Hours · **9** Lab Hours

Features the process of solving complicated site planning and site design problems. Each phase of the site planning process is examined in detail by undertaking one or more studio problems that involve resolution of issues related to existing site conditions, program development, conceptual design, design development, and design detailing.

### **LARC5664 – DESIGN STUDIO IV: ENVIRONMENTAL PLANNING**

**0** Lecture Hours · **9** Lab Hours

Expands the student's concept of the environment as a large scale ecologic unit independent of political



boundaries. Primary focus is on Geographic Information Systems (GIS); therefore, computer-aided design experience is a prerequisite. Presents a process of solving large scale planning problems through data gathering and information processing techniques commonly used by landscape architects employed in environmental planning.

### **LARC5665 – DESIGN STUDIO V: THE URBAN LANDSCAPE**

**0** Lecture Hours · **12** Lab Hours

The summary studio of the design sequence. Basic design principles are reiterated and problems are introduced which require interaction with architects, planners, urban designers, developers, or administrators, on complex urban projects. Course often uses design competitions as projects.

### **LARC5668 – DESIGN PRACTICUM**

**6** Lecture Hours · **0** Lab Hours

An internship program which includes approved work done in a landscape architect's office or one of the related design fields. The purpose of the practicum is to provide students with practical design experience. Students may enroll in 5368 for half-time employment or 5668 for full time employment.

### **LARC5691 – CONFERENCE COURSE IN LANDSCAPE ARCHITECTURE**

**6** Lecture Hours · **0** Lab Hours

Special subjects and issues in landscape architecture that may be studied independently under faculty supervision. May be repeated for credit.

### **LARC5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Independent research and presentation of findings under the direction of a supervising committee. The findings of the thesis should extend the boundaries of the professional discipline by either presenting new and unique ideas or information, or by interpreting existing knowledge from a different perspective.

### **LARC5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Independent research and presentation of findings under the direction of a supervising committee. The findings of the thesis should extend the boundaries of the professional discipline by either presenting new and unique ideas or information, or by interpreting existing knowledge from a different perspective.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[Accounting](#)

[Business Administration](#)

[Economics](#)

[Finance and Real Estate](#)

[Health Care Administration](#)

[Information Systems & Operations Management](#)

[Management](#)

[Marketing](#)

[College of Education and Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public Affairs](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Accounting

College of Business

### Chair Chandra Subramaniam

Web [www2.uta.edu/accounting/](http://www2.uta.edu/accounting/)

Email [accounting@uta.edu](mailto:accounting@uta.edu)

Phone 817.272.3481

Fax 817.272.5793

[409 Business Building](#)

### Degrees / Certificates

#### Master's Degrees

Accounting, M.S.

Professional Accounting, M.P.A.

Taxation, M.S.

#### Doctoral Degrees

Accounting, Ph.D.

#### Certificates

Tax Certificate

### Graduate Faculty

[Sandra Bitenc](#)

[Billy Brewster](#)

[Terra Mcghee](#)

[Stephanie Rasmussen](#)

#### Professor

[Thomas Hall](#)

[Li-Chin Jennifer Ho](#)

[Donald McConnell](#)

[Martin Taylor](#)

[Jeffrey Tsay](#)

#### Associate Professor

[Bethane Hall](#)

[Richard Mark](#)

[Terrance Skantz](#)

[Chandra Subramaniam](#)

#### Assistant Professor

[Jap Efendi](#)

[Glyn Winterbotham](#)

#### Assistant Adjunct Professor

[Sandra Henderson](#)

**Senior Lecturer**

**John Repsis**

**Lecturer**

**Carly Andrews**

---

**Graduate Advisors**

**Gregory Frazier**

*Accounting, Ph.D.*

**John Repsis**

*Accounting, M.S.  
Professional Accounting, M.P.A.  
Taxation, M.S.*

**Chandra Subramaniam**

*Accounting, M.S.  
Accounting, Non-Degree Seeking  
Professional Accounting, M.P.A.  
Professional Accounting, Non-Degree Seeking  
Tax Certificate  
Taxation, M.S.  
Taxation, Non-Degree Seeking*

**Martin Taylor**

*Accounting, Ph.D.*

---

**Department Information**

**Courses**

## Department Information

**Objective**

**Careers in Accounting**

**Accreditation**

**Admissions Requirements**

- **Degree-Seeking Students**
- **Regular Admission**

**University and College Fellowship/Scholarship Awards**

**Classroom Time Flexibility**

**Departmental Grade and Graduation Requirements**

**Professional Program in Accounting**

- **PPIA Enrollment and Course Sequence**
- **PPIA Admission Requirements**
- **Admission Criteria**

**Master of Science in Accounting**

***Proposed Admissions Changes Effective August 2014 >>***

- **M.S. in Accounting Tracks**

**Master of Professional Accounting (MPA)****Master of Science in Taxation**

- ***Proposed Admissions Changes Effective August 2014 >>***

**Certificate in Taxation**

- **Admission Requirements**
- **Information About Your Status as a Special Student**
- **Application to a Graduate Program**
- **Terms of Admission**
- **Current Graduate Students**

**Objective**

The objective of the Master of Professional Accounting, the Master of Science in Accounting, and the Master of Science in Taxation degree programs is to prepare students for professional careers in the public, private, or governmental sector. As a part of this objective, these programs are designed to provide the educational background to become a Certified Public Accountant or to attain other professional certifications. The MPA program, appropriate for students without significant prior study in accounting, is also designed to provide an understanding of selected fields such as management, finance, economics, and business law. The MS in Accounting and MS in Taxation are more specialized degrees which build on the individual's prior background in accounting and business-related subjects.

The department also offers a Certificate in Taxation. The objective of this certificate program is to serve degreed professionals who wish to update or add to their knowledge of taxation.

**Careers in Accounting**

Accounting is a career without limits. Accountants serve as analysts, consultants, and problem-solvers in business and government. Earning an accounting degree opens up a diverse array of career opportunities including: partner in an international accounting or consulting firm, corporate controller, chief financial officer, director of internal auditing, financial planner, or commercial lender. Compensation is highly competitive with excellent geographic mobility.

Students of accounting learn to use and control information technology systems, prepare and analyze financial reports, structure business transactions, and develop effective business plans. Individuals who like being challenged by a variety of situations and technologies and who enjoy identifying, analyzing, and solving problems are well-suited to majoring in accounting. Additional information about the accounting profession and its diverse opportunities can be obtained at <http://www.aicpa.org/BECOMEACPA/Pages/BecomeaCPA.aspx>.

**Accreditation**

The University of Texas at Arlington, its College of Business Administration and the Department of Accounting are accredited by AACSB - The International Association for Management Education. The department is also a member of the Federation of Schools of Accountancy.

**Admissions Requirements****Degree-Seeking Students****Regular Admission**

The Department of Accounting's (the Department) admission criteria for its master's programs

have been developed to conform to State of Texas requirements and are based on the general admission requirements of the Graduate School. Applicants are encouraged to include a resume that highlights professional and personal accomplishments with their application.

All applications for admission are reviewed individually. Admission decisions are based on factors associated with academic success in graduate study and may include any of the following criteria:

1. undergraduate grade point average,
2. graduate grade point average,
3. GMAT scores,
4. professional work experience,
5. professional certification or licensure,
6. letters of reference,
7. the applicant's personal statement,
8. prior successful completion of a baccalaureate degree,
9. prior successful completion of a postbaccalaureate degree, and
10. general and specific program accreditation status of the applicant's degree granting institution(s).

Standardized test scores are not used as the sole criterion for admitting applicants or the primary criterion for denying admission to applicants.

Depending on the circumstances applicants may:

1. Have their application denied or deferred; or
2. Receive unconditional, probationary, or provisional admittance.

Applicants whose documentation does not satisfactorily demonstrate readiness for graduate study may be denied admission. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

Unconditional admission is granted to applicants whose documentation clearly demonstrates a readiness for graduate study. Probationary admission may be granted to individuals who do not meet the Department's admission requirements but who nevertheless show promise for successful graduate study. Students admitted on this basis must meet certain academic requirements to remain in the program (such as no grade less than 'B' for first 12 hours of graduate study). An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisional status lasts through the initial semester of admission.

### **Admission Criteria**

The Department has four alternative sets of conditions that allow applicants to be unconditionally admitted without review by the Department's Admission and Petition Committee. The Departmental graduate advisor reviews all applications and determines if they qualify for admission under one of these four sets of criteria. Applicants who do not satisfy any of the following sets of conditions for unconditional admission are referred to the Departmental Admission and Petition Committee for consideration.

#### **Unconditional Admission without Committee Review:**

Applicants qualify for unconditional admission without the need for review by the Departmental Admission and Petition Committee if they meet any one of the following four sets of unconditional admission criteria:

##### **Unconditional Admission Set #1: GPA/GMAT Condition**

Individuals who meet each of the following five conditions are given unconditional admission:

- GPA on last 60 hours of undergraduate work is at least 3.0;
- GMAT total score is at least 500;

- GMAT verbal score at the 30<sup>th</sup> percentile or higher;
- GMAT quantitative score at the 30<sup>th</sup> percentile or higher; and
- Applicant holds an earned bachelor's degree from an accredited college or university.

#### **Unconditional Admission Set #2: GMAT Waiver Condition**

This unconditional admission set #2 focuses on the applicant's performance in UTA's undergraduate accounting program. Individuals who meet all of the following seven conditions are given unconditional admission.

- Graduated from UTA (with a bachelor's degree) within three years of expected entrance into the graduate program;
- Completed at least 60 semester hours at UTA;
- Majored in accounting at UTA;
- Has a 3.25 overall GPA at UTA;
- Has a 3.25 accounting GPA at UTA;
- Has a 3.25 GPA in all advanced work at UTA; and
- Has a 3.25 GPA in the last 60 semester hours completed at UTA.

Applicants may receive provisional admission under this set if they have not yet completed their last undergraduate semester at UTA. The provision is removed when they are awarded their undergraduate degree.

Applicants should be aware that this waiver applies for admission only to the Department's graduate programs. Other UTA graduate programs (such as the College of Business' MBA program) may require submission of a GMAT score before admission or transfer into their program. The Department will not accept GMAT waivers given to students in other graduate programs unless the student meets all the requirements specified above.

#### **Unconditional Admission Set #3: Professional Credential Condition**

This unconditional admission set # 3 focuses on the applicant's undergraduate grade point average and possession of a recognized professional accounting credential or license. Individuals who meet each of the following four (4) conditions are given unconditional admission.

- Graduated from an accredited college or university with an earned bachelor's degree;
- Has an overall undergraduate GPA of at least 3.0;
- Has an overall undergraduate major GPA of at least 3.0; and
- Holds a current and recognized professional accounting credential or license, including but not limited to:
  - Certified Public Accountant,
  - Certified Management Accountant,
  - Certified Internal Auditor,
  - Certified Financial Analyst,
  - Certified Fraud Examiner,
  - Chartered Accountant, or
  - Certified Valuation Analyst.

#### **Unconditional Admission Set 4: Successful Postbaccalaureate Education Condition**

This unconditional admission set #4 focuses on the applicant's previous successful completion of a postbaccalaureate degree with an acceptable graduate grade point average. Individuals who meet each of the following three conditions are given unconditional admission.

- Graduated from an AACSB accredited college or university with a postbaccalaureate degree (e.g., master's degree, JD degree, LLM degree, MD degree, Ph.D. degree);
- Has an overall graduate GPA of at least 3.0; and
- Has a graduate GPA of at least 3.0 in the major area.

## Admission with Committee Review

Applicants who require committee review are considered for admission using the following factors, with no single factor used as the primary criterion for making admission decisions.

- Undergraduate and graduate GPA (overall, major, and last 60 hours) and program accreditation status of the applicant's degree granting institution;
- Score on the GMAT (including separate scores on the verbal and quantitative portions);
- Applicant's professional work experience and professional certification/licensure; and
- Letters of reference and personal statement provided by the applicant.

To qualify for unconditional admission with committee review, applicants must hold an earned bachelor's degree from an accredited college or university and are expected to show significant strength in at least three of the four areas listed above. The Admission and Petition Committee may also grant probationary admission to applicants who demonstrate significant strength in at least two of the four areas listed above.

By considering the totality of the applicant's circumstances, including the factors listed above, the Admission and Petition Committee will evaluate an applicant's readiness to successfully complete one of the Department's graduate programs. Depending on the judgment of the committee, the decision may be to grant unconditional admission, probationary admission, provisional admission, deferred admission, or to deny admission. The decision of the committee is final.

International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum of 40 on the TSE, a minimum of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement. International applicants who score below the minimums above may be admitted with the condition that they pass an English proficiency examination or complete UTA's Graduate English Skills Program prior to beginning graduate coursework. However, the TOEFL score requirement is waived if the applicant holds either a bachelor's or a master's degree from an AACSB accredited US college or university.

## University and College Fellowship/Scholarship Awards

The Department of Accounting follows all applicable Graduate School criteria when awarding graduate fellowships and scholarships. Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as a sole criterion or the primary criterion for determining fellowship and/or scholarship support.

## Classroom Time Flexibility

All of the graduate degree programs offered by the Department of Accounting can be completed by individuals who work full-time and wish to attend class in the evenings. Each student's program of work must be approved by the Accounting Graduate Advisor and must include a minimum of 27 semester hours taken at The University of Texas at Arlington. Courses which are not considered suitable to a student's program of work will not be approved. During the final semester, students who have written a thesis must defend the thesis in an oral examination.

## Departmental Grade and Graduation Requirements

Students enrolled in accounting degree programs are subject to the grade requirements for academic probation and graduation as specified under the general regulations of the Graduate School. In addition to the Graduate School's Regulations, the Department of Accounting will not allow any course in which a student earns a D or F to be applied toward the student's program of work.

## Professional Program in Accounting

The Department of Accounting offers a Professional Program in Accounting (PPIA) that allows students to earn both a bachelor's degree and master's degree upon completion of an integrated 152-hour program. This integrated program can be completed in approximately one less semester than required to earn separate bachelor's and master's degrees. Students completing this program will have earned sufficient hours to sit for the CPA exam.

### PPIA Enrollment and Course Sequence

Students will get maximum effectiveness from the PPIA program if they apply two semesters before completing undergraduate coursework.

Upon admission to the PPIA, students will meet with the Graduate Advisor to obtain their graduate degree plan. Students will continue following their undergraduate plan until all appropriate undergraduate coursework is completed. Courses omitted from the undergraduate coursework will be taken as part of the MS program. These courses will be taken later as part of the graduate program and will be applied to both the graduate degree and the undergraduate accounting degree. At the beginning of the last semester of undergraduate enrollment, PPIA students will formally apply for graduate admission. At this point, students should again meet with the graduate advisor to ensure a smooth transition to graduate school.

### PPIA Admission Requirements

The Department of Accounting's (the department) admission criteria for its PPIA program have been developed to conform to State of Texas requirements and are based on the general admission requirements of the Graduate School. Applicants are encouraged to include a resume that highlights professional and personal accomplishments with their application.

All applications for admission to the PPIA program are reviewed individually. Admission decisions are based on factors associated with academic success in graduate study and may include any of the following criteria: (1) undergraduate grade point average, (2) performance in accounting classes at UTA, (3) GMAT scores, (4) professional work experience, (5) personal accomplishments, (6) letters of reference, and (7) the applicant's personal statement. Standardized test scores are not used as the sole criterion for admitting applicants or denying admission to applicants.

### Admission Criteria

The Department has two alternative sets of conditions that allow applicants to be unconditionally admitted to the PPIA program without review by the Departmental Admission and Petition Committee. The Departmental Graduate Advisor reviews all applications and determines if they qualify for admission under one of these two sets of criteria. Applicants who do not satisfy any of the following sets of conditions for unconditional admission are referred to the Departmental Admission and Petition Committee for consideration.

#### **Option #1: Unconditional Admission without Committee Review**

Individuals who meet **each** of the following **eight** conditions are given unconditional admission:

- Overall undergraduate GPA is at least 3.0;
- UTA undergraduate GPA is at least 3.0;
- UTA accounting GPA is at least 3.0;
- Have completed at least 9 semester hours of accounting study (beyond principles) at UTA;
- Have completed at least 45 semester hours of coursework at UTA;
- GMAT total score is at least 500;
- GMAT verbal score at the 30th percentile or higher; and
- GMAT quantitative score at the 30th percentile or higher.

#### **Option #2: Unconditional Admission with GMAT Waiver**



This unconditional admission option #2 focuses on the applicant's performance in UTA's undergraduate accounting program. Individuals who meet **all** of the following **six** conditions are given unconditional admission.

- Majoring in accounting at UTA;
- Have completed at least 9 semester hours of accounting study (beyond principles) at UTA;
- Overall undergraduate GPA is at least 3.25;
- UTA accounting GPA is at least 3.25;
- Have completed a minimum of 60 semester hours at UTA;
- Have a GPA of at least 3.25 for the most recent 60 semester hours of courses completed at UTA.

#### **Admission with Committee Review**

PPIA applicants who require Committee review are considered for admission using the following factors, with no single factor used as the primary criterion for making admission decisions.

- Undergraduate GPA (overall, UTA undergraduate) and performance in accounting courses at UTA;
- Score on the GMAT (including separate scores on the verbal and quantitative sections);
- Applicant's professional work experience and personal accomplishments;
- Letters of reference and personal statement provided by the applicant.

Unconditional admission is granted to applicants whose documentation clearly demonstrates a readiness for graduate study. By considering the totality of the applicant's circumstances, including the factors listed above, the Admission and Petition Committee will evaluate an applicant's readiness to successfully complete one of the Department's graduate programs. To qualify for unconditional admission with committee review, applicants are expected to show significant strength in at least three of the four areas listed above. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisional status lasts through the initial semester of admission. Applicants whose documentation does not satisfactorily demonstrate readiness for graduate study may be denied admission. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. The decision of the Committee is final.

### **Master of Science in Accounting**

This program is designed for students who have an undergraduate degree in accounting or a degree in business administration with a major in accounting who wish to specialize in an area of accounting other than tax. The student, with the assistance and consent of the Graduate Advisor, will develop a course of study designed to meet his or her educational needs in light of previous academic work and career objectives.

The M.S. in Accounting requires the student to complete a minimum of 36 semester hours of coursework, 24 of which must be in the accounting discipline.

If students have not satisfactorily completed all of their pre-enrollment competency requirements, they will, in addition to their program of work, also be required to complete those pre-enrollment competency courses. A grade of A or B is required for each pre-enrollment competency course. If college courses in these areas have not been completed with a grade of A or B, students must include these courses in their program of work. If needed, these courses may be completed at the undergraduate or graduate level.

#### **M.S. in Accounting Tracks**

Students can select various specialization tracks in an accounting-related discipline such as external reporting, audit/systems or managerial. Students may also choose to direct their 12 hours of business electives toward a specialized track such as finance, economics, information systems, management or marketing. Recommended course sequences for both the accounting and external



tracks can be obtained by consulting the "Advising" section of the departmental Web site at [web.uta.edu/accounting](http://web.uta.edu/accounting).

## Master of Professional Accounting (MPA)

The MPA program is designed for individuals who hold an undergraduate degree in any major other than accounting (economics, engineering, finance, liberal arts, management, mathematics, science, etc.) . The MPA program requires the student to complete a minimum of 42 semester hours of coursework. If the student has not satisfactorily completed all of their pre-enrollment competency requirements, they will, in addition to their program of work, also be required to complete those pre-enrollment competency courses. A grade of A or B is required for each pre-enrollment competency course. If college courses in these areas have not been completed with a grade of A or B, students must include these courses in their program of work. If needed, these courses may be completed at the undergraduate or graduate level.

For those individuals who hold an undergraduate business degree, the MPA will normally require 42 hours of coursework. For those individuals who hold an undergraduate degree in a non-business discipline, the MPA will normally require 45 hours of coursework for those with a science or engineering undergraduate degree and 51 hours for most other non-business undergraduate degrees. Regardless of undergraduate background, the MPA degree requires a total of 27 hours of accounting plus 6 hours of accounting principles as a pre-enrollment requirement. Thus, MPA graduates will have a total of 33 hours of accounting.

## Master of Science in Taxation

The Master of Science in Taxation (MST) is designed for students who have an undergraduate degree in accounting or a degree in business administration with a major in accounting who wish to specialize in taxation. The student, with the assistance and consent of the Graduate Advisor, will develop a course of study designed to meet his or her educational needs in light of previous academic work and career objectives.

The degree requires a minimum of 36 semester hours, of which 27 semester hours must be accounting. Of the required accounting semester hours, 15 of those semester hours must be in the area of taxation beyond ACCT 5314.

If the student has not satisfactorily completed all of their pre-enrollment competency requirements, they will, in addition to their program of work, also be required to complete those pre-enrollment competency courses as part of their program of work. A grade of A or B is required for each pre-enrollment competency course. If college courses in these areas have not been completed with a grade of A or B, students must include these courses in their program of work. If needed, these courses may be completed at the undergraduate or graduate level.

## Certificate in Taxation

To support The University of Texas at Arlington's mission to provide lifelong learning opportunities to the community, the Department of Accounting offers qualified applicants an opportunity to participate in a Graduate Certificate in Taxation. The program offers graduate courses in specific areas of taxation as a means of

- maintaining and promoting their professional development in an interactive environment;
- acquiring continuing education hours necessary to maintain a professional certification;
- furthering their opportunity to participate in a graduate degree program. Subject to the applicable degree requirements, up to 4 courses taken in the certificate program can be applied toward a master's degree;
- providing quality cost-efficient staff training;
- interacting with other professionals and developing a dialogue that can improve your practice's efficiency and effectiveness. A number of our professors in the program are either currently with the Internal Revenue Service or in practice in the area of specialization associated with the course.

## Admission Requirements

This certification program is a post-baccalaureate educational opportunity available to degreed professionals. It is narrower in scope and shorter in duration than any of the department's graduate degree programs. To qualify, an applicant must

- have an undergraduate degree;
- have a grade point average of 3.0;
- follow the admission procedures required for a special student.

A GMAT score and letters of recommendation are not required for admission to the program.

## Information About Your Status as a Special Student

Special student status characteristics:

- Good for only one semester
- Must be approved by the Dean of Graduate Studies
- No more than twelve (12) hours of work earned as a special student may be applied to a graduate degree at UT Arlington.

A person who is admitted as a special student and later seeks admission to a degree program must submit a regular Graduate School Application for Admission form, pay the application fee, submit all required documents, and meet all admission requirements, including admission tests and any additional requirements established by the degree program.

## Application to a Graduate Program

Admission as a special student in no way guarantees subsequent unconditional admission into a graduate program or the Graduate School. Anyone who enters the Certification Program and later seeks a graduate degree at the College of Business Administration may apply 12 hours of coursework toward that degree program if done within 6 years of completion of the certificate by petitioning the Graduate School through her/his prospective academic department. Only grades of A and B may be so applied toward graduate credit.

## Terms of Admission

Once admitted, participants may take up to four (4) of the approved courses. The terms of admission allow participants to take only the specific courses approved for the program. Participants would not be allowed to take courses outside of their program without applying for and having been accepted into the graduate program.

## Current Graduate Students

Graduate students currently enrolled in a UT Arlington graduate program may also earn the certificate by notifying the Chair of the Department of Accounting of their intent to participate in the certification program and by successfully completing the prescribed number of classes.

## Available Courses

The Certificate in Taxation requires students to take and successfully complete, with a minimum GPA of 3.0, four advanced tax courses. Those students entering the Certificate Program without having taken the equivalent of the undergraduate tax course will also be required to take a "foundation" course, ACCT 5314. The four advanced tax courses are limited to ACCT 5339 and three additional courses selected from the following: ACCT 5341, ACCT 5342, ACCT 5345, ACCT 5346 and ACCT 5347

Courses appropriate for the Certificate Program have been selected because their subject matters directly relate to materials needed by professionals engaged in tax-related activities. Full course descriptions for these advanced courses are included in The University of Texas at Arlington's Graduate Catalog.

### **Grade Point Average While in the Certificate Program**

All participants in the program must meet the normal GPA requirements of the Graduate School, College and Department of Accounting. In particular, they must maintain an overall GPA of 3.0 in order to receive the Certificate.

## **ACCT Courses**

### **ACCT5133 – PROFESSIONALISM IN ACCOUNTING**

1 Lecture Hour · 0 Lab Hours

Topics to engender a stronger sense of professionalism: business and social etiquette, self-assessment, professional deportment, networking, effective communication skills, and dressing professionally. Topics primarily presented by accomplished professionals from public accounting, industry, and government. Prerequisite: ACCT 5311 with a grade of C or higher or acceptance in the PPIA .

### **ACCT5199 – GRADUATE ACCOUNTING INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Practical training in accounting. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ACCT5299 – GRADUATE ACCOUNTING INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Practical training in accounting. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ACCT5301 – ACCOUNTING ANALYSIS I**

3 Lecture Hours · 0 Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of financial accounting.

### **ACCT5302 – ACCOUNTING ANALYSIS II**

3 Lecture Hours · 0 Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of managerial accounting. Prerequisite: ACCT 5301 with a grade of C or higher.

### **ACCT5311 – FINANCIAL ACCOUNTING I**

3 Lecture Hours · 0 Lab Hours

Examination of financial accounting process, problems encountered in preparation of financial statements, and concepts and principles used to resolve these problems. Prerequisite: ACCT 5301 with a grade of C or higher.

### **ACCT5312 – FINANCIAL ACCOUNTING II**

3 Lecture Hours · 0 Lab Hours

Study of additional problems encountered in preparation of financial statements. Prerequisite: ACCT 5311 with a grade of C or higher.

### **ACCT5313 – SOFTWARE TOOLS**

3 Lecture Hours · 0 Lab Hours

An in-depth study of software that would likely be used by accountants and other business people. May

include spreadsheet, database, and accounting software, tax software, and other types of tools such as XBRL and XML. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5314 – PRINCIPLES OF FEDERAL INCOME TAX**

**3** Lecture Hours · **0** Lab Hours

A study of general federal income tax principles such as income, deductions, losses and property transactions. The principles of individual taxation will be covered as well as an overview of tax considerations for entities such as corporations and partnerships. Prerequisite: ACCT 5301 with a grade of C or higher.

### **ACCT5315 – ACCOUNTING SYSTEMS ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of business information processes. Includes coverage of control concepts, audit trails, and the uses of information technology. Emphasis on the role of accounting in collecting, storing, and communicating information for management planning and control. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5316 – AUDITING CONCEPTS AND PRACTICES**

**3** Lecture Hours · **0** Lab Hours

Concentrates on practice of professional accounting and auditing. Emphasizes decision making in a variety of unstructured situations where decisions demand a grasp of purpose, method, and judgment for their resolution. May not be taken for credit by students who have received credit for a course in auditing. Prerequisite: ACCT 5312 and 5315 with grades of C or higher.

### **ACCT5317 – COST ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

Uses and classification of costs incurred in manufacturing. Emphasis on concepts involved in assignment and reporting of costs under job order, process, standard and direct costing systems. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5318 – STUDIES IN AUDITING**

**3** Lecture Hours · **0** Lab Hours

A critical analysis of advanced topics in both auditing theory and professional practice. Emphasis on: development of auditing theory, generally accepted auditing standards, professional responsibilities, auditing EDP, SEC practice and reporting, cases in audit decision making, and analyses of emerging issues and contemporary problems in auditing. Prerequisite: ACCT 5316 with a grade of C or higher.

### **ACCT5319 – FINANCIAL ACCOUNTING III**

**3** Lecture Hours · **0** Lab Hours

Accounting for business combinations, preparation of consolidated financial statements, multinational operations, partnerships, and estates and trusts. Prerequisite: ACCT 5312 with a grade of C or higher.

### **ACCT5320 – GOVERNMENTAL AND NONPROFIT ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

Budgeting, accounting and financial reporting, managerial control, and auditing considerations of governmental and nonprofit entities. Prerequisite: ACCT 5312 with a grade of C or higher.

### **ACCT5321 – RESEARCH IN ACCOUNTING ISSUES**

**3** Lecture Hours · **0** Lab Hours

Designed to improve student's ability to research complex areas in accounting and to sharpen understanding and application of accounting concepts and principles. Case studies and problems considered and analyzed. Prerequisite: Excel certification and ACCT 5312 with a grade of C or better.

### **ACCT5322 – ACCOUNTING FOR MANAGEMENT PLANNING AND CONTROL**

**3** Lecture Hours · **0** Lab Hours

Concentrates on information needs of management for planning and control of operations. Topics include setting corporate objectives, behavioral problems, capital budgeting and profit-planning, the use of quantitative tools, divisional performance evaluation, and transfer pricing. May not be taken for credit by students who previously received credit for ACCT 4302 or equivalent. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5324 – FINANCIAL STATEMENT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A study of the basic financial statements and their use by managers, investors, and creditors. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5327 – CONTEMPORARY ISSUES IN ACCOUNTING THEORY**

**3** Lecture Hours · **0** Lab Hours

Designed to familiarize students with significant problems currently facing the accounting profession, to examine in depth various solutions proposed by accounting scholars and others, and to strengthen student understanding of today's critical issues in accounting theory. Prerequisite: ACCT 5312 with a grade of C or higher.

### **ACCT5329 – CONTEMPORARY ISSUES IN ACCOUNTING INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

An exploration of current topics critical to accounting information systems. The course is designed to enhance student understanding of emerging issues and technologies related to reporting, internal controls, system security and effectiveness. Topics may change semester to semester. Prerequisite: ACCT 5315 with a grade of C or higher.

### **ACCT5330 – INTERNATIONAL ACCOUNTING AND FINANCIAL REPORTING**

**3** Lecture Hours · **0** Lab Hours

Financial accounting and reporting principles and practices in various countries, the role of accounting in economic development, as well as the accounting considerations in international business operations -- e.g. foreign currency translation, auditing, accounting systems, taxation, and sensitive payments. Prerequisite: ACCT 5302 with a grade of C or higher.

### **ACCT5332 – OPERATIONAL AUDITING**

**3** Lecture Hours · **0** Lab Hours

A study of operational audit methodology for management audits. Audits of administrative and support functions, and other special areas such as fraud audits. Prerequisite: Graduate standing and six hours of accounting with grades of C or higher.

### **ACCT5335 – DESIGN OF ACCOUNTING SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

A detailed study of the data entry, storage (file design), internal control, and reporting requirements of accounting systems, followed by the development of a significant accounting subsystem using a software development tool. Prerequisite: ACCT 5315 with a grade of C or higher.

### **ACCT5339 – TAX PLANNING AND RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A study of the use of various techniques and procedures available in evaluating issues arising under federal income tax law. Emphasizes research into individual and business tax problems and planning alternatives. Prerequisite: ACCT 5314 with a grade of C or higher.

## **ACCT5340 – STUDY OF FEDERAL INCOME TAX FOR ENTITIES OTHER THAN INDIVIDUALS**

**3** Lecture Hours · **0** Lab Hours

Comprehensive analysis of the federal income tax consequences applicable to entities other than individuals. Analysis of the relevant tax principles of corporations, partnerships, trusts and estates will be undertaken. Cannot be taken for credit within the 36-hour program requirements for Master of Science in Taxation program. Prerequisite: ACCT 5314 with a grade of C or higher.

## **ACCT5341 – TAXATION OF PASSTHROUGH ENTITIES**

**3** Lecture Hours · **0** Lab Hours

Analysis of the federal income tax rules governing passthrough entities. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher. Credit will not be received for both ACCT 5340 and ACCT 5341.

## **ACCT5342 – TAX PROBLEMS OF CORPORATIONS AND SHAREHOLDERS**

**3** Lecture Hours · **0** Lab Hours

Analysis of the federal income tax rules governing corporations and shareholders. Subjects include corporate formations, corporate capital structure, administrative requirements affecting corporations, the corporate alternative minimum tax, special tax provisions (such as the personal holding company and accumulated earnings taxes and the collapsible corporation rules), nonliquidating distributions, stock dividends, redemptions and partial liquidations, liquidating distributions, corporate reorganizations, and Subchapter S corporations. Prerequisite: ACCT 5314 and 5339 with grades of C or higher. Credit will not be received for both ACCT 5340 and ACCT 5342.

## **ACCT5343 – TAX PROBLEMS OF TRANSACTIONS IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Problems and elections relating to the acquisition, holding, and disposition of real property. Subjects include means of acquisition and disposition, capital gains and losses, deferred payment sales, organization of syndicates, sale and leaseback, dissolutions, and general tax-saving methods. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher.

## **ACCT5345 – STATE AND LOCAL TAXATION**

**3** Lecture Hours · **0** Lab Hours

Introduction to the principles and practices of state and local taxation. Topics considered in the course include the application of both inter- and intra- state taxation, allocation and apportionment principles and issues in relation to the predominant forms of state taxes, such as franchise, sales, use, income, ad valorem, and property tax. Prerequisite: ACCT 5314 and 5339 with grades of C or higher.

## **ACCT5346 – TAX PRACTICE AND PROCEDURE**

**3** Lecture Hours · **0** Lab Hours

This course overviews the procedural aspects of dealing with the Internal Revenue Service. The focus is from the private practitioner's perspective in assisting clients in navigating the Service's administrative requirements. Topics include administrative organization of the Service, tax audits, the use of Service administrative summonses, statutes of limitation, penalties, interest charges, civil and criminal procedures and appeals. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher.

## **ACCT5347 – FEDERAL TAXATION OF GIFTS AND ESTATES**

**3** Lecture Hours · **0** Lab Hours

A comprehensive survey of the principles and procedures involved in determining the federal estate tax and the supplementary federal gift tax including taxability and valuation of property and the determination of deductions and credits. Prerequisite: ACCT 5314 and ACCT 5339 with grades of C or higher.

## **ACCT5352 – INFORMATION SYSTEMS AUDIT AND CONTROL**

**3** Lecture Hours · **0** Lab Hours

A study of modern approaches to the audit and control of business information systems. Prerequisite:



ACCT 5315 and 5316 with grades of C or higher.

### **ACCT5353 – STATISTICAL TECHNIQUES USED IN ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

A study of statistical techniques used in accounting. Topics include alternative sample selection methods, attribute methods, mean-per-unit estimation, ratio and difference estimation, monetary unit sampling, and regression analysis. Prerequisite: STAT 5301 with a grade of C or higher.

### **ACCT5366 – FRAUD EXAMINATION**

**3** Lecture Hours · **0** Lab Hours

Analysis of fraud examiner and auditor responsibilities and current methodologies with respect to financial fraud investigation, detection, and prevention. Management's responsibilities for fraud deterrence and implementation of effective prevention measures. Identification, analysis, and examination of financial fraud using actual case studies. Prerequisite: ACCT 5316 with a grade of C or higher.

### **ACCT5380 – ETHICS IN ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

This course is intended to introduce students to ethical reasoning, integrity, objectivity, independence, professionalism and other core values. The course incorporates the essentials of professional responsibilities, including elements of trust and communications with clients and other professionals. Both ethical principles and rules are considered. This course is intended to satisfy conditions of the Texas State Board of Public Accountancy that require candidates for the CPA Exam to have completed an approved ethics course. Prerequisite: ACCT 5312 or equivalent.

### **ACCT5382 – INDEPENDENT STUDIES IN ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of an accounting topic. Prerequisite: Consent of faculty member and department chair.

### **ACCT5392 – SELECTED TOPICS IN ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in accounting. May be repeated when topics vary. Prerequisite: consent of instructor.

### **ACCT5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Thesis. Graded F, R. Prerequisite: permission of Accounting Graduate Advisor.

### **ACCT5399 – GRADUATE ACCOUNTING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in accounting. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ACCT5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Thesis. Graded F, R. Prerequisite: permission of Accounting Graduate Advisor.

### **ACCT6101 – ACCOUNTING RESEARCH COLLOQUIUM**

**1** Lecture Hour · **0** Lab Hours

A forum in which visiting scholars and U.T. Arlington faculty members present and discuss results of their contemporary research. Doctoral students participate by meeting with visiting scholars, reading the

research papers, providing written critiques, and discussing the papers. Doctoral students are required to enroll and attend the colloquia presentations each fall and spring semester until the students pass all their comprehensive examinations. May be repeated for credit. Prerequisite: consent of College PhD advisor.

### **ACCT6309 – SEMINAR IN ACCOUNTING RESEARCH I**

**3** Lecture Hours · **0** Lab Hours

Analysis of the theoretical and empirical literature in accounting. Prerequisite: consent of College PhD advisor.

### **ACCT6310 – SEMINAR IN ACCOUNTING RESEARCH II**

**3** Lecture Hours · **0** Lab Hours

Continuation of analysis of the theoretical and empirical literature in accounting. Prerequisite: ACCT 6309 with a grade of C or higher and consent of the College Ph.D. advisor.

### **ACCT6311 – SEMINAR IN ACCOUNTING RESEARCH III**

**3** Lecture Hours · **0** Lab Hours

Continuation of analysis of the theoretical and empirical literature in accounting. Prerequisite: ACCT 6310 with a grade of C or higher and consent of the College Ph.D. advisor.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Business Administration

College of Business

Web [www2.uta.edu/gradbiz/](http://www2.uta.edu/gradbiz/)

Email [question@uta.edu](mailto:question@uta.edu)

Phone 817.272.3004

Fax 817.272.5799

**107 Business Building**

---

### Degrees / Certificates

#### Master's Degrees

Business Administration, M.B.A. (Flexible Format)

Business Administration, M.B.A. (Professional Cohort)

Business Administration, M.B.A. Non Thesis Fast Track

Business Administration, M.B.A. Thesis Fast Track

Executive M.B.A.

Online Business Administration (Online M.B.A.)

#### Doctoral Degrees

Business Administration, Ph.D.

#### Certificates

Entrepreneur Certificate

Graduate Advanced Studies Business Certificate

---

### Graduate Faculty

#### Assistant Dean

**David Mack**

#### Coordinator of International Programs

**Pui-Ying Chin**

#### Director

**Melanie McGee**

#### EMBA Executive Director

**James Ellis**

#### Associate Professor

**Edmund Prater**

---

### Graduate Advisors

#### Gregory Frazier

*Business Administration, Ph.D.*

#### **Linda Goggans**

*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

#### **David Mack**

*Executive M.B.A.*

#### **Rebecca Neilson**

*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

#### **Edmund Prater**

*Business Administration, Ph.D.*

#### **Chandra Subramaniam**

*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Executive M.B.A.*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

---

## **Department Information**

### **Courses**

# **Department Information**

#### **Master of Business Administration**

- **Objective: Master of Business Administration (MBA) Program**
- **Accreditation**
- **Admissions**
  - **Unconditional Admission**
  - **Probationary Admission**
  - **Provisional Admission**
  - **Deferred and Denied Admission**

#### **Non-Thesis Degree Requirements**

- **Waivers and Transfer Credit**
- **Deficiency Courses**
- **Core Courses**
- **Advanced Program**
- **Required Advanced Courses**
- **Specialty and Breadth Electives**
- **Selection of Electives (Specialty or Breadth)**

#### **Thesis Degree Requirements**

- **Grade and Graduation Requirements**
- **Planning a Program of Work**

- **Requirements for Electives**

#### **International Business Option**

#### **Professional Management Electives**

#### **Dual Degree Plan: Bachelor of Science in Biology and Master of Business Administration**

- **Application Procedure**
- **Description**

#### **Professional Cohort format (also referred to as CMBA or PMBA)**

#### **Graduate Certificate Programs**

- **Graduate Advanced Studies Certificate**

#### **Objective: Master of Business Administration Online (MBAO) Program**

#### **Executive MBA Program**

#### **Objective: Ph.D. in Business Administration**

- **Admission**
- **Categories of Admission Decisions**
- **University and College Fellowship/Scholarship Awards**
- **Degree Requirements**

#### **Residence Requirements**

#### **Diagnostic and Annual Performance Evaluations**

#### **Comprehensive Examinations**

#### **Dissertation**

## **Master of Business Administration**

### **Objective: Master of Business Administration (MBA) Program**

The Master of Business Administration program offers enhanced learning experiences that prepare leaders and managers for careers with all types of organizations. The faculty's research commitment and consulting rigor contribute to educational excellence. The community of shared knowledge leads to strategic partnerships that significantly enhance the nature of business education. A variety of MBA degrees and certificates are offered to serve a wide variety of interests.

Graduates from the programs are competent in the leadership of organizations and the cross-functional management of organizational resources. Competence is based on educational experiences that foster creative thinking, awareness of global opportunities, sound analytic decision-making, strategic awareness, excellence in functional disciplines, and the internalized values of effective teamwork and leadership. The dedicated faculty and high quality career services assist each student in achieving their educational and career goals.

### **Accreditation**

The Master of Business Administration program is accredited by the AACSB International, the premier accreditation body for business schools in the U.S.

### **Admissions**

Admission to the MBA program is based upon the completion of the general admission

requirements of the Graduate School. For MBA program admission a score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and record of one's undergraduate academic performance are required. The GMAT is strongly preferred. Students for whom English is not their native language must also submit TOEFL, TOEFL IBt, TSE or IELTS scores. International applicants that score below minimum acceptable levels on the on such examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework.

Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. Applicants with two to five years of experience are preferred.

A standardized test score (GMAT or GRE) will not be used as the sole criterion for determining an applicant's admission to the MBA program. Multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to defer/deny admission is not based on any single criterion.

Specifically, multiple criteria are used to make admission decisions. Quantitative measures include an applicant's GMAT score and grade point average as calculated by the Graduate School. These measures are integrated into a formula, or index, that multiplies the grade point average by 200 and adds the total GMAT score. A graduate grade point average is used in the index when it is 3.0 or above and is based on at least 24 semester hours.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.2 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GPA by 200 and adds the resulting value to the GMAT Score. An index score greater than 1080 is typical of a successful candidate. No equivalent index exists for GRE scores. GRE sub scores (verbal and quantitative) at or above the 40th percentile are typical of a successful candidate.
2. A GMAT score of 500 or greater, with sub scores (verbal and quantitative) in the 30th percentile or greater, is typical of a successful candidate. While the GMAT is strongly preferred, the GRE is acceptable. GRE sub scores (verbal and quantitative) in the 40th percentile or greater, is typical of a successful candidate.
3. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
4. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
5. Educational objectives and quality of written expression of the 200 word application essay.
6. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
7. General and specific program accreditation status of degree-granting institution.
8. Professional work experience.
9. Professional certification or licensure

### **Unconditional Admission**

For unconditional admission, the applicant's composite total from the index is typically 1080 or greater and items 1 through 5 above should strongly indicate potential for successful academic performance as a graduate business student.

Students who are unconditionally admitted, have a minimum undergraduate grade point average

of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as the sole criterion for determining fellowship and/or scholarship eligibility.

### **Probationary Admission**

For an applicant with an index score below 1080 or an applicant who shows deficiency in one or more areas of items 1-9, probationary admission may be available when at least three items of 1 through 5 above strongly indicate potential for successful academic performance as a graduate business student. Items 6 through 9 will also be used to identify positive indicators for admission. Students who are admitted on probation will have one or more conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission upon recommendation of the appropriate Committee on Graduate Studies and approval of the Dean of Graduate Studies. Complete and satisfactory credentials must be received by the Graduate School before the end of the semester in which the student has registered in a provisional status. A student will not be permitted to enroll in the Graduate School with a provisional status for more than one semester. Provisional admission does not guarantee subsequent admission on an unconditional basis.

### **Deferred and Denied Admission**

A deferred decision may be made when an applicant's file is not sufficiently complete to make an admission decision, or when an applicant needs to improve certain criteria to improve their competitive status for future admission consideration.

For an applicant with an index score falling substantially below 1080, and lacking sufficient evidence to indicate potential for academic success as a graduate business student, admission will likely be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

## **Non-Thesis Degree Requirements**

The program is designed to accommodate both full-time and part-time students from widely divergent backgrounds. It is not necessary to have completed prior academic work in business administration. Core courses, which are an integral part of the program, are designed to prepare the student for advanced coursework. In order to accommodate the needs of fully-employed professionals, the College of Business Administration offers a complete program in the evening and on Saturday. Most evening or Saturday classes are taught by full-time faculty members and the same academic standards required of full-time students are maintained. Students are expected to progress through the program at a pace that is commensurate with the time available.

### **Waivers and Transfer Credit**

There are three types of required courses: deficiency, core and advanced. Programs of work will normally vary in length from 36 to 45 hours (plus deficiency courses), depending upon waivers granted. Provided the minimum 36 hour program requirement is maintained, applicants may have both deficiency and core courses waived without the requirement for a substitute course. Such waivers will be approved if they have completed a similar course within the last 10 years, at a recognized college or university, and received a "B" or better grade in that course. Extensions to this 10-year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience. Additionally, a maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by the program advisor. Transfer of graduate courses from other universities will be considered on a case-by-case basis.

## Deficiency Courses

Applicants are encouraged to complete deficiency requirements prior to applying or at the beginning of their studies. College courses in business math (including probability and set theory, linear equations, matrix algebra, compound interest, annuities, and differential and integral calculus), business statistics, and computers (including general topics, spreadsheets and word processing and electronic communications) may be taken prior to entry in the program. Students who are deficient in written and/or oral communication may be required to take ENGL 1301 and/or SPCH 1301 at UT Arlington after enrollment in the program.

## Core Courses

Core courses are often prerequisites for courses taken in the advanced portion of the MBA program. Therefore, core courses should be taken early in the MBA program. The following courses are considered core MBA courses:

- Accounting Analysis I (ACCT 5301)
- Economic Analysis (ECON 5311)
- Operations Management (OPMA 5361)
- Marketing (MARK 5311)
- Finance (FINA 5311)
- Management (MANA 5312)

A prerequisite requirement is considered fulfilled when the student is granted a waiver of that specific core course. Core courses may not be taken as electives in the advanced program.

## Advanced Program

The advanced program provides each student the opportunity to tailor their studies to enhance their desired career opportunities. The careers program outlined below provides excellent support and advice to help the student choose an area of specialty and to select those electives that will build requisite career skills. Available specialties include accounting, economics, finance, information systems, international business, management, operations management, and marketing.

## Required Advanced Courses

Requirements for the advanced program include the following:

- STAT 5325 Advanced Statistical Methods
- BLAW 5330 or MANA 5337 Legal Environment of Business or Ethics and the Business Environment
- ECON 5313 Managerial Economics\*
- ACCT 5302 Managerial Accounting\*
- MANA 5336 Strategic Management (Capstone course - taken in last semester of program)

\* If relevant academic background is extensive enough in this subject area, the program advisor may allow course substitutions which will correspondingly expand the number of electives in the advanced portion of the program.

## Specialty and Breadth Electives

Students may take between nine and fifteen hours in a particular functional area and declare a specialty in that area. However, the advanced portion of the program must have a minimum of five courses (15 semester hours) outside the area of specialty which may be satisfied by the required advanced courses. Courses taken outside the area of specialty are considered breadth electives.

## Selection of Electives (Specialty or Breadth)

Students may wish to tailor their program of work to develop business skills and perspectives essential to their career goals and objectives (see Planning a Program of Work). Subject to the



approval of the program advisor, some breadth electives may be taken outside the College of Business, when the student has an academic background in that area, or the electives are appropriate to the student's career goals and objectives.

A specialty in accounting requires a minimum of 12 semester hours beyond ACCT 5301 and ACCT 5302. Any four advanced accounting courses may be taken; however, it is recommended that the four courses be selected from the list below:

1. ACCT 5322 Accounting for Management Planning and Control
2. ACCT 5324 Financial Statement Analysis
3. ACCT 5330 International Accounting and Financial Reporting
4. Select one of the following:
  - ACCT 5314 Principles of Federal Income Tax
  - ACCT 5315 Accounting Systems Analysis
  - ACCT 5317 Cost Accounting
  - ACCT 5332 Operational Auditing

## Thesis Degree Requirements

Requirements for the MBA thesis degree are the same as those for a non-thesis program with the following change. A six-hour thesis must be added to the normal 36-hour advanced MBA program. All candidates for this type degree shall defend the thesis at a final oral examination.

## Grade and Graduation Requirements

The MBA program follows the grade requirements for probation as specified under the general regulations of the Graduate School. In addition, students must have at least a 3.0 grade point average in all coursework and area of specialty (concentration) to graduate.

Students may be dismissed from the MBA program if they accumulate grade deficiency points greater than allowed. Any grade of C is worth one deficiency point, any grade of D is worth two deficiency points, and any grade of F is worth three deficiency points. Deficiency points will not be removed or replaced from a student's official graduate record by additional coursework.

The maximum allowable deficiency points will be computed by the program advisor when the degree plan is prepared, modified or reviewed using the following guidelines:

Program Length (excluding transfer credit)	Allowable Deficiency Points
12 courses	2
13-17 courses	3
18 courses or more	4

## Planning a Program of Work

All students are encouraged to plan an advanced program of work early in their studies. The planning process begins with a New Student Orientation, which is scheduled and conducted by Graduate Business Services in the College of Business. This mandatory Orientation will be the student's initial advising session and will provide important reference materials to assist them in preparing a preliminary advanced program of work. This session will also provide the student an opportunity to meet with a program advisor who will outline the process for finalizing their program of work.

When planning a program of work, students may consider including several opportunities to enhance their career outcomes. Full-time students are encouraged to take advantage of the careers program outlined in the College portion of this catalog. The Careers and Managing in a Changing Environment (MANA 5338) course provides opportunities for students to discover their own talents and abilities, identify appropriate careers, and explore marketplace opportunities. Such

early career positioning allows students to focus their studies on those courses that will provide the most desirable skill sets. Additionally, students may select research topics and case presentations that will develop a strong industry awareness. Study abroad and internship opportunities also expand students' educational experiences on both a curricular and extracurricular basis. These special programs must be approved by the program advisor and included in the student's program of work.

Part-time students who are fully employed are encouraged to explore opportunities available in their organizations. Application of classroom information to the daily challenges faced in any business organization will expand students' education and career preparation. The career class (MANA 5338) will assist working students in seeking "best-fit" opportunities in their organizations.

### Requirements for Electives

Students may take breadth electives in any of the curriculum areas of the MBA program. Students may take up to six semester hours in non-business coursework as part of their breadth electives, subject to the approval of the MBA program advisor.

### International Business Option

The international business option (INBO) attracts students from every continent and provides a comprehensive program of challenging study in international business administration. In this option, students may have a traditional MBA specialty (see above) or may choose a broad program of study with no specialty. Generally a student must complete a minimum of 3-4 courses from the international courses listed below in order to be considered as having elected this option.

Students are encouraged to enrich their international education by participating for graduate credit in established foreign exchange programs in Australia, England, France, Germany, Korea, Mexico, and Norway, or by gaining approval to participate in unique study abroad programs offered by other AACSB accredited schools. Appropriate foreign language proficiency must be demonstrated before attending programs in France, Germany and Mexico or when required by study abroad programs. Students are encouraged to participate for academic credit in international business internships available in the Metroplex or overseas as part of an established exchange or study abroad program.

MBA students may further enhance their international skills by participating in the dual degree program with Thunderbird University. Under this program, students may earn both an MBA (UT Arlington) and the Master of International Management (Thunderbird) degree. This program normally allows students to apply 12 hours of advanced coursework and all core requirements towards both programs. Students wishing to participate may obtain detailed information about the program from the Graduate Business Services Office in the College of Business Administration. Students must independently apply and gain admission to both programs.

Students planning a career in the international field are encouraged to pursue internationally related research topics while taking approved research courses. Research topics may include conducting an area study (Latin American, African, Asian, European, etc.). Students should also recognize the importance of those graduate courses in political science and history, or additional courses in undergraduate foreign languages, which would embellish their graduate studies.

ACCT 5330 International Accounting and Financial Reporting  
 ACCT 5348 International Tax  
 BLAW 5331 Law of International Business  
 ECON 5319 Economic Analysis of International Business  
 ECON 5321 International Trade and The Global Marketplace  
 ECON 5327 International Finance and Open Economy Macroeconomics  
 FINA 5331 Multinational Financial Management  
 FINA 5332 Seminar in International Financial Markets  
 MANA 5331 Management of International Operations  
 MARK 5331 International Marketing



## Professional Management Electives

Students holding bachelor's or master's degrees in professional fields such as architecture, education, engineering, nursing, social work, and urban studies have the option of taking, with program advisor approval, up to 12 hours of approved breadth electives in their professional area as part of their MBA degree requirements. With these electives, professionals can develop advanced management skill in a functional area by declaring a 9-12 hour specialty, or pursue a more general management approach by declaring "no specialty."

## Dual Degree Plan: Bachelor of Science in Biology and Master of Business Administration

A five-year program designed to prepare students for careers as managers with specific knowledge of the biomedical science field. Students are required to take courses from life sciences, business, and liberal arts, culminating in a dual Master of Business Administration Degree (MBA), including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Business and the College of Science. The BS in Biology will be conferred at the same time as the MBA. If students in this joint degree program are not accepted into the MBA program, or if students enter the MBA program and fail to complete the requirements for the MBA, then, in order to earn a BS in Biology they must take the same, full complement of courses required for a BS as students not enrolled in the joint program.

### Application Procedure

Students interested in this integrated undergraduate and graduate degree plan should consult with the Biology undergraduate advisor. If eligible for the program, the Biology undergraduate advisor will direct them to contact Graduate Business Services. Application procedures will be discussed at that stage.

### Description

This degree program is designed to provide students with a strong background in the life sciences and with a contemporary education in business administration that will impart the necessary knowledge and skills to enable them to perform effectively in many career fields. The program includes course work in the basic sciences as well as accounting, economics, finance, marketing, and management. Additionally, students are required to take general education courses in literature, fine arts, history, political science, and social science.

## Professional Cohort format (also referred to as CMBA or PMBA)

The professional cohort format of the MBA program is designed to provide high quality graduate business studies for working professionals who desire to continue their full-time employment. In this specially-designed, team-based (cohort) format, MBA courses are taken in sequence, in accelerated 5- or 8-week sessions, within each academic semester. This customized, sequential course delivery allows the team to complete their MBA degree in only 24 months.

This program is 45 semester hours for all students and is a traditional Master of Business Administration (MBA); therefore, the program includes the same general curriculum requirements as the MBA program detailed above.

## Graduate Certificate Programs

### Graduate Advanced Studies Certificate

Individuals who hold a graduate degree in business and wish to pursue additional graduate studies in business solely for the purpose of professional development may apply to the Master of

Business Administration Program as a special student. Applicants should outline their professional development objectives in their written essay that accompanies their application. Additionally, they must meet all requirements for admission to the MBA program. Coursework in this program must meet the grade requirements of the Graduate School and be completed within a three year time-limit. A certificate will be granted upon successful completion of 12-21 hours of approved coursework in an area of business. Executives completing courses from two or more areas will be awarded a certificate in the area of executive development. Managers or functional specialists completing courses in one area of study will be awarded a certificate for their professional development area. Some courses taken under this program may not be applied in the future toward another graduate degree at this University.

## **Objective: Master of Business Administration Online (MBAO) Program**

**PLEASE NOTE: At this time, admissions to our Online MBA have been suspended for future semesters**, as UT Arlington is transitioning out of the UT Online MBA Consortium. While other UT System universities have developed, or are in the process of developing, their own online MBA programs, UT Arlington does not plan to offer a full online MBA program in the near future. Please feel free to visit our website for future updates/developments.

The MBA Online program in General Management provides today's students with the tools necessary to become leaders in the workplace of tomorrow. This challenging degree program pools the impressive resources and diverse perspectives of eight accredited University of Texas System institutions. Students will find a highly skilled, statewide team of professors presenting a broad, interactive curriculum. The program may be completed in as few as two or as many as six years.

Students apply for admission at any of the sponsoring institutions and receive their degrees from that university. To apply at The University of Texas at Arlington, students follow the same procedure required for the in-residence MBA (see the previous section titled Admissions). Applicants to the Online MBA program must specify on their application for admission that they are applying to the Online MBA program.

The Online MBA contains 16 courses (48 credit hours) all of which can be accessed entirely from remote locations. The program leads to an MBA with a specialty in General Management.

The program contains the following 16 courses:

- \*Accounting Analysis (UTD)
- \*Economic Analysis (UTD)
- \*Management (UTPA)
- Quantitative Analysis (UTSA)
- \*Marketing Management (UTPB)
- \*Financial Management (UTA)
- Research Methods (UTPA)
- Information Systems for Managers (UTSA)
- Legal Environment in Business (UTB)
- \*Production and Operations Management (UTB)
- Contemporary Topics in Financial Management (UTPB)
- Accounting for Decision Making (UTSA)
- Human Resource Management (UTB)
- Leadership and Change (UTPA)
- Strategic Management (UTA)

\*denotes Core Courses

Note: UTA denotes classes offered by The University of Texas at Arlington; UTB denotes classes offered by The University of Texas at Brownsville; UTD denotes classes offered by The University of Texas at Dallas; UTPA denotes classes offered by The University of Texas at Pan American;

UTPB denotes classes offered by The University of Texas at Permian Basin; and UTSA denotes classes offered by The University of Texas at San Antonio.

Up to four core courses may be waived based upon recent academic coursework and satisfactory grades, for a minimum 36-hour program. Two additional courses may be waived based upon courses taken in residence at The University of Texas at Arlington. A minimum of 8 courses (24 credit hours) must be taken online. Waivers and transfer credit follow the same regulations as the in-residence MBA (see the previous section titled Waivers and Transfer Credit). For more information, visit the UT TeleCampus Web site: [www.telecampus.utsystem.edu](http://www.telecampus.utsystem.edu)

## **Executive MBA Program**

The Executive MBA (EMBA) program is designed to provide high-quality graduate management education to mid-level and upper-level managers and executives. The program covers all functional areas of business management and exhibits several content integrating themes associated with successful management of modern business organizations, including project management, international operations, total quality management, and strategic resource alignment.

A cohort-based design with a lock-step, fixed curriculum and heavy emphasis on case studies are prominent features of the EMBA program. Students, who are usually fully employed, enter the program as a group of 25 to 30 and progress through courses together. The schedule of classes is non-traditional and utilizes weekend and accelerated formats. Course content is delivered by the best faculty, using methods that maximize student interaction and high levels of knowledge transfer to students' job situations.

## **Objective: Ph.D. in Business Administration**

The objective of the Doctor of Philosophy in Business Administration degree is primarily to develop scholars with an ability to teach and conduct independent research in various areas of business administration. The program prepares students for careers as creative teachers and researchers by providing thorough preparation in both the theory and practice of business administration. The curriculum emphasizes and develops the rigorous analytical skills needed to make significant contributions in fields of business. Graduates of the program will assume significant roles in the world's educational and research institutions.

Coursework is offered in the following areas: accounting, banking and finance, business economics, business policy/strategic management, business statistics, personnel/human resource management, insurance and risk management, international business management, investments and securities, labor/industrial relations, management information systems, management sciences, marketing management and research, organizational behavior, organizational theory, production/operations management, real estate, small business management and ownership, and taxation. Coursework in these areas of study supports the following major fields: Accounting, Economics, Finance, Information Systems, Management, Marketing, and Operations Management.

## **Admission**

Admission to the Ph.D. program is based upon the completion of the general admission requirements of the Graduate School. For Ph.D. program admission a score on the Graduate Management Admission Test (GMAT) or Graduate Record Exam (GRE), and a record of undergraduate and master level academic performance are required. Students for whom English is not their native language must achieve a TOEFL score of at least 550. International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete U.T. Arlington's Graduate English Skills Program prior to beginning graduate coursework. Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. A

standardized test score (GMAT or GRE) will not be used as the sole criterion for denying an applicant's admission to the Ph.D. program.

Specifically, multiple criteria are used to make admission decisions. Quantitative measures include an applicant's GMAT or GRE score and grade point averages on undergraduate and master level work as calculated by the Graduate School. No formula is used nor weights assigned to these factors. The Ph.D. Graduate Studies Committee and the field coordinator for the student's track in the Ph.D. program give consideration to these and other factors (educational objectives, letters of recommendation, etc.) in the entire file to arrive at a decision. Interviews with prospective students are encouraged and given consideration in the decision process. There are no set minimum scores for GMAT or GRE required for admission and no cutoff scores on grade point averages. Prospective students are encouraged to work with their track's field coordinator to work through the admission process.

### Categories of Admission Decisions

An applicant is unconditionally admitted when all factors for consideration indicate very strong potential for academic success as a business doctoral student. When multiple factors indicate lack of potential, admission will be denied. Probationary admission is not available for the doctoral program.

A provisional decision to admit may be granted when the applicant meets criteria for unconditional admission but an item of applicant information has not been received by the Graduate School. A deferred decision may be made when an applicant's file is not sufficiently complete to make an admit or deny decision.

### University and College Fellowship/Scholarship Awards

Doctoral students who are newly admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (and 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT or GRE) will not be used as the sole criterion for determining fellowship and/or scholarship eligibility.

### Degree Requirements

All students must complete work in three fields: a major (dissertation) field, a minor field, and a research field. A minor field may be external to the College of Business Administration. Examples are industrial engineering, mathematics, computer science, sociology, and psychology. The student must petition for approval of an external minor field.

The following minimum semester hours must be included in the student's Program of Study.

	Minimum Semester Hours
Business Foundation *	
Major Field	18**
Minor Field	12**
Research Field	15**
Dissertation	18

\* From 0-15 hours depending upon the student's background at the time of admission to the doctoral program.

\*\*Previous equivalent advanced coursework may be accepted.

### Residence Requirements

Each student enrolled in the doctoral program must enroll for and successfully complete a minimum of 15 hours in one 12-month period prior to completion of the comprehensive

examinations. Each student must enroll for at least 12 hours every year. All students enrolled in the program must successfully complete all coursework and comprehensive examinations within a maximum of 60 months from initial enrollment in the program. A minimum of 24 graduate hours in residence, excluding dissertation, are required for all candidates.

## Diagnostic and Annual Performance Evaluations

All doctoral students are expected to show steady progress toward their degree and to demonstrate satisfactory advances in their ability and motivation to conduct independent research throughout their program. During a student's program, a diagnostic evaluation will be conducted near the end of the first year, but no later than 24 credit hours. After the first year, an annual performance evaluation will take place each subsequent year. The evaluation will be conducted by the major area Ph.D. advisor in consultation with a faculty committee. If the student has not yet passed all comprehensive examinations or does not have a formal dissertation committee, the faculty committee will consist of the faculty in the major area. If the student has passed all comprehensive examinations and has a formal dissertation committee, the faculty committee will consist of the Dissertation Committee.

Upon completion of the evaluation, a recommendation of continuation or discontinuation in the program is made to the College of Business Administration Ph.D. program director for a final decision. For a discontinuation decision resulting from the first year diagnostic evaluation, the student will immediately be discontinued in the Ph.D. program. For a discontinuation decision in the annual performance review in the second year and beyond, the student will have one regular semester (Fall or Spring) to demonstrate satisfactory improvement in their performance. At that time the major area Ph.D. advisor in consultation with the appropriate faculty committee, and the Ph.D. program director, will make a final decision on whether the improvements are satisfactory. An unsatisfactory decision at that time will result in the immediate discontinuation of the student in the program.

During the diagnostic and annual performance reviews, reasons for poor performance include: grade point averages below minimum GPA requirements, unsatisfactory progress in completing coursework, unsatisfactory progress in completing dissertation, and inadequate demonstration of ability and motivation to conduct independent research.

## Comprehensive Examinations

Students must demonstrate competence in their major, minor, and research fields by the successful completion of written examinations. Written comprehensive examinations in each field will be given at the start of each fall and spring semester of each year and may be given during the summer term. A student is eligible for a written comprehensive examination when that student has completed (1) the Business Foundation with a GPA of at least 3.25 and (2) prescribed coursework in the field. A research publication option may also satisfy the minor comprehensive examination.

If a student fails a written comprehensive examination and continues in that field, the examination must be retaken within a period of not more than 13 months. If a student fails a second comprehensive examination in a major or research field, that student will not be permitted to continue in the program. If a student twice fails a written comprehensive examination in a minor field, that student will not be permitted to continue in that field.

A student must complete all written examinations within 25 months or retake any examinations which fall outside the 25-month period. When a student successfully completes all the written examinations, that student is scheduled for a comprehensive oral examination which is administered by the student's Supervisory Committee. A student who fails the comprehensive oral examination is given a second oral examination within 12 months of the date of the first examination. If a student fails the second comprehensive oral examination, that student will not be permitted to continue in the program.

Upon successful completion of written and oral comprehensive examinations, the student is

admitted to candidacy.

## Dissertation

The Dissertation Committee consists of a minimum of five members. The chair of the Dissertation Committee must be from the major field. At least one member of the committee must be from the research field and one member of the committee must be from outside the major field. With the approval of the Graduate Dean, one of the five members may be a nationally or internationally recognized non-U.T. Arlington scholar.

Following completion of the comprehensive examinations, students will be required to enroll for at least nine hours of dissertation each regular semester and at least six hours each summer until completion of the dissertation. See Doctoral Requirements for Dissertations at the front of this catalog for exceptions. Students must register for a minimum total of 18 semester hours of dissertation and must be enrolled for a minimum of nine hours of dissertation in the semester in which they defend the dissertation.

The dissertation must be completed within four years of the oral comprehensive examination.

## BSAD Courses

### BSAD6310 – FOUNDATIONS OF SCIENTIFIC INQUIRY

3 Lecture Hours · 0 Lab Hours

The evolution of the modern corporation is briefly addressed. The core topics include the structure of explanation, the structure of scientific laws, theory building, philosophy of science and relativistic/post-relativistic philosophies of science.

### BSAD6311 – EXPERIMENTAL DESIGN

3 Lecture Hours · 0 Lab Hours

In-depth coverage of selected topics in the design of research and analysis of data; topics include philosophy of science, theory of measurement, complex experimental and quasi-experimental designs.

### BSAD6312 – REGRESSION

3 Lecture Hours · 0 Lab Hours

The theoretical and practical aspects of regression analysis. Topics include simple and multiple linear regression, the matrix formulation of regression models, regression diagnostics and remedial measures, collinearity and ridge regression, normal correlation models, and non-linear least squares, time series including ARIMA models are covered. Practical applications of statistical software packages are emphasized.

### BSAD6313 – ANOVA

3 Lecture Hours · 0 Lab Hours

Experimental design and data analysis, especially as related to business and economic research. Topics include completely randomized designs, complete and incomplete blocks, nested designs, estimation and testing of fixed, random and mixed effects, sampling, nonparametric statistics and analysis of variance.

### BSAD6314 – MULTIVARIATE STATISTICS

3 Lecture Hours · 0 Lab Hours

Focuses on methods of analyzing mean and covariance structures. Topics include commonly applied multivariate methods such as multiple analysis of variance, repeated measures, discriminant analysis, profile analysis, canonical correlations and factor analytic methods. The use of matrix algebra and available computer packages will be stressed.



### **BSAD6315 – TIME SERIES**

**3** Lecture Hours · **0** Lab Hours

Univariate and multivariate time series; analysis of economic and financial data; out-of-sample forecasting using computer software. Autoregressive-moving average models, vector autoregression, unit roots, co-integration, ARCH and GARCH.

### **BSAD6316 – FINANCIAL ECONOMETRICS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of the econometric tools and techniques used in empirical finance research. Course emphasizes data extraction and analysis of common finance databases, as well as the theoretical basis for current empirical finance techniques and methods.

### **BSAD6317 – ECONOMETRICS**

**3** Lecture Hours · **0** Lab Hours

Statistical methods applied to business and economic problems; topics include multiple regression, generalized linear regression, systems estimation.

### **BSAD6330 – NONPARAMETRIC STATISTICS**

**3** Lecture Hours · **0** Lab Hours

A survey of statistical tools which may be used when the normal assumptions of parametric statistics cannot be made; including procedures for categorical data, methods involving ranks, bootstrapping, and Kolmogorov-Smirnov type techniques. Cross listed with BSTAT 5330. Prerequisite: BSTAT 5325 or equivalent.

### **BSAD6392 – DOCTORAL RESEARCH AND TEACHING COLLOQUIUM**

**3** Lecture Hours · **0** Lab Hours

Review of the research process and contemporary developments in the methodology and design of empirical research in the major fields of study represented in the doctoral program. Review of teaching methods for effective classroom instruction. May be repeated for credit.

### **BSAD6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

### **BSAD6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

### **BSAD6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

### **BSAD7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not

complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **EMBA Courses**

### **EMBA5192 – SPECIAL TOPICS IN ASIAN BUSINESS**

1 Lecture Hour · 0 Lab Hours

Topic/issue presentations and discussions contained in a seminar which examines state-owned enterprises, foreign-invested firms, and private business organizations in China.

### **EMBA5201 – ASSESSING LEADER STYLE, BEHAVIOR, AND RESULTS**

2 Lecture Hours · 0 Lab Hours

"Strength based leadership" recognizes that there are many different aspects of leadership such as an individual's personality, skills, experience, creativity, personal integrity, initiative, and environment. Using a battery of leadership assessment tests, participants will explore their own strengths (and weaknesses) and the impacts these have on their personal leadership style.

### **EMBA5205 – UNDERSTANDING ETHICAL DIMENSIONS OF BUSINESS**

3 Lecture Hours · 0 Lab Hours

Leaders face many challenges. Not the least of these are the challenges that rapid growth, personal wealth, and stockholder/stakeholder pressures place on executives. This course explores these issues with emphasis on the ethics of managerial decision making, creating ethical environments for employees, establishing expected norms of behavior, and the consequences of unethical behavior.

### **EMBA5206 – BUILDING AN INTELLIGENT AND INNOVATIVE ENTERPRISE**

2 Lecture Hours · 0 Lab Hours

Students investigate an organization's effort to build an intelligent and innovative enterprise, how to deploy strategic information technologies (IT), and how to launch IT-enabled new products and services. Students explore how strategic IT can help the organization to become structurally more competitive and culturally more innovative through the development of knowledge management systems.

### **EMBA5211 – COMPETING IN A GLOBAL ENVIRONMENT**

2 Lecture Hours · 0 Lab Hours

With an ever-growing number of industries becoming global in scope, managers are being increasingly challenged to manage strategies within a global perspective. This course provides participants with the skills, knowledge and sensitivity required to successfully manage organizations and organizational units within a multinational environment.

### **EMBA5302 – MANAGERIAL ECONOMICS IN THE GLOBAL BUSINESS ENVIRONMENT**

2 Lecture Hours · 0 Lab Hours

This module provides a detailed review of world economic development and international managerial economics. Multinational trade, international finance, and country economic development are critically examined using a comparative perspective, including gateways and barriers to entering country markets.

### **EMBA5303 – OPTIMIZING QUALITY AND PROCESS WITH ACCOUNTING INFORMATION**

3 Lecture Hours · 0 Lab Hours

Modern tools for meeting the competing challenges of organizational cost minimization are explored within an environment that demands near-perfect quality standards. Emphasis is on leveraging accounting information for decision making, strategic management, and for the control of processes and organizations.

### **EMBA5304 – MAKING STRATEGIC DECISIONS WITH FINANCIAL DATA**



**3 Lecture Hours · 0 Lab Hours**

Practical analytical skills needed to manage the financial and tangible resources of a firm are presented. Students gain exposure to the fundamentals of asset valuation models, financial forecasting, risk management, capital structure alternatives, cash flow management, reporting and disclosure issues, liability identification, and equity development.

### **EMBA5307 – DESIGNING GLOBAL SUPPLY CHAINS FOR COMPETITIVE ADVANTAGE**

**3 Lecture Hours · 0 Lab Hours**

Students learn how to analyze logistics problems on a functional, business, and companywide basis and gain an understanding of the organizational structures used in logistics, how to select a multinational location site, how to configure global-scale facilities, and ways to develop international sourcing networks.

### **EMBA5308 – CREATING CUSTOMER VALUE**

**3 Lecture Hours · 0 Lab Hours**

This course focuses on strategies and tactics to create customer value and build long term relationships to meet organizational goals. Students are exposed to tools that enable managers to understand the ever-changing marketplace and then build an effective marketing strategy to meet corporate goals. Not all customers are profitable or perhaps desirable. Customer management strategies to build marginal buyers into desired customers are also covered.

### **EMBA5309 – ACCESSING CAPITAL MARKETS FOR GLOBAL OPERATIONS**

**3 Lecture Hours · 0 Lab Hours**

Effective utilization of capital markets, both domestic and foreign, is essential for a thriving firm. Leaders must be able to assess relative benefits and costs of both short-term and long-term sources of expansion capital not only within their home markets but also within the context of global markets. Evaluation of and access to foreign capital markets requires an understanding of characteristics of international financial instruments, the operation and structure of foreign capital markets and fundamentals of measurement and management of foreign exchange exposure.

### **EMBA5310 – DEVELOPING STRATEGIES FOR COMPETITIVE ADVANTAGE**

**3 Lecture Hours · 0 Lab Hours**

This course seeks to broaden students' perspectives of competitive strategy and encourage development and understanding of how firms create and reinforce a competitive advantage in the marketplace. Conceptual tools associated with the understanding of industry and industry dynamics are explained with the assessment of core competencies. Students learn how to evaluate key competitors in the formulation and implementation of "winning" strategies.

### **EMBA5312 – BUILDING HIGH PERFORMANCE TEAMS**

**3 Lecture Hours · 0 Lab Hours**

One of the most difficult challenges that business leaders face is developing talented managers into a high performance executive team. This becomes even more critical in a multinational environment. This module focuses on the strategic management of human resources for building effective teams, retaining high performers, and managing people for gaining competitive advantage.

### **EMBA5413 – EXPERIENCING THE GLOBAL ENVIRONMENT: INTERNATIONAL PROJECT**

**4 Lecture Hours · 0 Lab Hours**

A key factor in determining the ultimate success of a business plan to penetrate a global market is a thorough understanding of the local culture. Immersion in a culture is an excellent way to gain an appreciation of local customs and traditions. Students will create a business plan for a U.S.-based company to enter a foreign market and participate in a ten day to two week study abroad.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Economics

College of Business

### Chair Roger Meiners

Web [economics.uta.edu](http://economics.uta.edu)

Phone 817.272.3061

Fax 817.272.3145

**309 Business Building**

---

### Degrees / Certificates

#### Master's Degrees

Economics Data Analytics, M.S.

---

### Graduate Faculty

#### Professor

[William Crowder](#)

[Daniel Himarios](#)

[Roger Meiners](#)

[Michael Ward](#)

#### Associate Professor

[Chi Young Choi](#)

[Aaron Smallwood](#)

[Mahmut Yasar](#)

#### Assistant Professor

[Joshua Price](#)

[Christy Spivey](#)

#### Visiting Assistant Professor

[Shalah Mostashari](#)

#### Clinical Professor

[Jane Himarios](#)

#### Associate Clinical Professor

[Olga Isengildina](#)

[Timothy Wunder](#)

---

### Graduate Advisors

#### [Chandra Subramaniam](#)

*Economics, Non-Degree Seeking*

## Department Information

### Courses

# Department Information

### Objective

#### Admission Requirements

- **Probationary Admission**
- **Deferred and Provisional Admission**
- **Denial of Admission**
- **Fellowships and Scholarships**

#### Degree Requirements

- **M.A. Degree in Economics: Three Options**

### Objective

The Master of Arts is an applied economics program. As a "terminal" degree program, it teaches marketable skills for employment in business or government. The program consists of a solid analytical core in economics and quantitative methods, supplemented with courses in special fields. Potential specialization areas currently emphasized are forecasting/quantitative techniques, international business economics and applied financial economics. The program is also recognized nationally for preparing students who want to pursue the Ph.D. degree in economics.

Economics is one of the areas a student may choose to study in the Doctor of Philosophy in Business Administration program. Additional information concerning the doctoral program is presented in the catalog under the heading Business Administration.

### Admission Requirements

Admission to the M.A. program in economics is based upon the completion of the general admission requirements of the Graduate School. For admission to the M.A. program in economics, a score on either the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) and record of one's academic undergraduate performance are required. Students for whom English is not their native language must achieve a TOEFL score of at least 550 (213 on computer-based test). International applicants who score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework. Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. A standardized test score (GMAT or GRE) will not be used as the sole criterion for admitting applicants or the primary criterion for denying admission to the M.A. program in economics.

Multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to deny admission is not based on any single criterion alone.

1. A bachelor's degree from an accredited general or specific program.
2. An acceptable undergraduate GPA as calculated by the Graduate School (approximately the last 60 hours), generally greater than a 3.0 on a 4.0 scale.

3. An acceptable score on the Graduate Record Examination or GMAT. Successful students generally have a minimum score of 148 (600 old GRE scale) on the Quantitative section and 150 (450 old GRE scale) on the Verbal section of the GRE or a minimum score of 480 on the GMAT.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential success in graduate school.
5. Grades in specified undergraduate business and non-business courses (e.g., math, accounting, economics, statistics).
6. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or an equivalent score on a computer-based test) or a score of 40 on the Test of Spoken English.

### Unconditional Admission

For unconditional admission, the applicant's composite total from the index (this index is derived by using a formula that multiplies the GPA by 200 and adds the resulting value to the GMAT score) must be 1080 or greater and items 1 through 5 above should strongly indicate potential for successful academic performance as a MA Economics student.

For unconditional admission, the applicant can score 148 (600 old GRE scale) or higher on the Quantitative section and 150 (450 old GRE scale) or higher on the Verbal section of the GRE and items 1 through 5 above should strongly indicate potential for successful academic performance as a MA Economics student.

The GRE/GMAT test requirement for admissions to the Economics MA program can, under extraordinary circumstances, be waived at the discretion of the department if the applicant already has been awarded a terminal graduate degree from a regionally or professionally accredited program.

### Probationary Admission

If an applicant does not meet items 1 through 6 for unconditional admission, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

### Deferred and Provisional Admission

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

### Denial of Admission

After a thorough review of the application file, a candidate may be denied admission if he or she has less than satisfactory performance on any two the admission criteria. All applicant data will be carefully reviewed before an admission denial is made.

### Fellowships and Scholarships

Students admitted with no provisional conditions to satisfy are eligible for available scholarship and/or fellowship support. A limited number of merit-based scholarships and fellowships may be awarded to graduate students enrolled in a minimum of 6 hours of coursework in both long semesters.

### Degree Requirements

## M.A. Degree in Economics: Three Options

The Department of Economics provides three Master's tracks: a Thesis Option for those intending to later pursue a Ph.D. in economic, and two Non-Thesis tracks, a traditional flexible option and an applied economics option. The Ph.D. Preparation Option designed primarily for students who intend to pursue a Ph.D. in economics. This program provides excellent preparation for entry into a Ph.D. program. The second option is the flexible non-thesis program enabling a degree candidate to greater flexibility in designing a program to fit one's interest. A third track, also non-thesis, is the Applied Economic Analysis or "number crunching" option designed to prepare graduates to manage and analyze data sets. In this track there is less emphasis on theory and a greater focus on empirical tools.

### M.A. Degree, Thesis: Ph.D. Preparation Option

The Ph.D. Preparation Option in the M.A. degree program is an excellent choice for students intending to obtain a Ph.D. in Economics later at another institution. A minimum of 24 semester hours of coursework, plus a minimum of 6 semester hours of thesis study, are required to obtain the M.A. in Economics, Thesis Option. The core course requirements are ECON 5301 or equivalent, 5310, 5312, 5336, 5339, 5337, 5338, and 5329. These courses would be followed by the thesis hours plus additional relevant courses the candidate wishes to pursue. Students develop a thesis topic in consultation with a faculty member who supervises the thesis with other committee members.

### M.A. Degree, Non-Thesis: Traditional Option

The non-thesis M.A. degree in Economics gives a solid foundation in economic theory and the key elements of econometric analysis but is more flexible than the thesis option. It requires a minimum of 36 semester hours of coursework, including 18 hours required core courses: ECON 5301 or equivalent, 5310, 5312, 5336, 5339, and 5329. The remaining 18 hours include 6 semester hours in economics and 12 semester hours in supporting subjects with the approval of the Graduate Advisor. Successful completion of ECON 5329 satisfies the Graduate School requirement of a final master's examination. This program may be appealing to dual degree candidates as discussed below.

### M.A. Degree, Non-Thesis: Applied Economic Analysis Option

The Applied Economic Analysis option in the M.A. program, which is new for 2010, focuses on a major growth area—data analysis. Hal Varian, Chief Economist at Google, has explained why the demand for data analysis is growing rapidly. Organizations have low-cost computer time, huge quantities of data, and access to software tools that allow data analysis. The problem in using these assets is a shortage of qualified empirical analysts. One must know how to find data, be critical of it, develop it by use of software packages, and explain what has been learned by analysis. Advances in econometrics analysis allow us to better understand key issues, such as pricing and cost, inventory management, population trends, and other issues that impact business and government.

This non-thesis option M.A. in Economics requires 36 semester hours of coursework. The focus is on quantitative analysis with a requirement of 18 hours and will normally be taken in the following sequence so analytical tools can be fully developed: ECON 5336, 5339, 5337, 5338, 5329, and 5341. The last course satisfies the Graduate School requirement of a final master's examination. It is a professional research project that allows the candidate to demonstrate the "number crunching" abilities developed in the program. The resulting work will provide evidence to employers of practical ability to manage and analyze data for a range of private and public organizations. Six semester hours of electives in economics are also required plus 12 semester hours in supporting relevant courses as approved by the Graduate Advisor. This program may be appealing to dual degree candidates as discussed below and candidates with a strong quantitative and computer-based skill orientation.

## ECON Courses

### ECON5182 – INDEPENDENT STUDIES IN ECONOMICS

1 Lecture Hour · 0 Lab Hours

Extensive analysis of an economic topic. Prerequisite: Departmental Permission Required.

### ECON5199 – GRADUATE ECONOMICS INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in economics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### ECON5282 – INDEPENDENT STUDIES IN ECONOMICS

2 Lecture Hours · 0 Lab Hours

Extensive analysis of an economic topic. Prerequisite: Departmental Permission Required.

### ECON5299 – GRADUATE ECONOMICS INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in economics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### ECON5301 – MATHEMATICS FOR ECONOMISTS

3 Lecture Hours · 0 Lab Hours

Course is designed to upgrade mathematical skills for graduate work in economics and business. The emphasis is on calculus and linear algebra and their applications in economic analysis. Mathematical tools covered include optimization, comparative-statics analysis, and simple dynamic analysis. Prerequisite: MATH 1316 or other calculus course.

### ECON5306 – ENVIRONMENTAL ECONOMICS

3 Lecture Hours · 0 Lab Hours

An examination of the development of laws and policies that concern the environment followed by an application of economic analysis for environmental issues such as water use, air pollution, land controls, public lands, and global environmentalism. Other topics include: property rights, theories of regulation, and entrepreneurship. Participants will produce and present a case study on an environmental economic subject of interest. Prerequisite: ECON 5311 or equivalent.

### ECON5310 – MICROECONOMIC THEORY

3 Lecture Hours · 0 Lab Hours

Development of marginal analysis and game theory tools in economics; Focus on the analysis of consumer choice and decision making by firms; Development of competitive model and various deviations from competition including the exercise of market power, externalities, and information asymmetries. Prerequisite: ECON 3310.

### ECON5311 – ECONOMIC ANALYSIS

3 Lecture Hours · 0 Lab Hours

Provides an overview of microeconomic foundations of economic analysis with a focus on business applications. Topics include supply and demand, marginal analysis, pricing issues and theory of the firm. An overview of macroeconomics is also provided, covering monetary and fiscal policy, inflation, growth and international trade. Non-credit for MA in Economics.

### ECON5312 – MACROECONOMIC THEORY

3 Lecture Hours · 0 Lab Hours



Study of the aggregate approach to the economy and the tools of analysis used for the solving of national economic problems. Prerequisite: ECON 3312

### **ECON5313 – MANAGERIAL ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

Application of economic analysis in formulating business decisions based on the theoretical foundations of demand, cost, production, profits, and competition. Macroeconomic topics of particular relevance to managers are included. Prerequisite: ECON 5311 or equivalent.

### **ECON5314 – ECONOMICS OF ORGANIZATION AND BUSINESS STRATEGY**

**3** Lecture Hours · **0** Lab Hours

Microeconomic and game theoretic treatment of firm strategy. Describes and analyzes firm level methods to reduce costs, organize production, manage tasks, acquire suppliers or distributors, set prices, and determine product quality. Course covers the use of horizontal (oligopoly) and vertical (supply chain) restrictions from both firm and social points of view. Prerequisite: ECON 5311 or equivalent.

### **ECON5315 – ECONOMICS OF TECHNOLOGY AND INNOVATION**

**3** Lecture Hours · **0** Lab Hours

Microeconomic examination of technology and innovation. Analyzes the effects of technology on industrial market structure, firms' strategies and public policy. Topics include determinants and effects of innovation, industry evolution, managing firm boundaries, intellectual property, and managing technological processes. A substantial amount of time will focus on dynamic industries including telecommunications, e-commerce, software, entertainment, pharmaceuticals, and biotechnology. Prerequisite: ECON 5311 or equivalent.

### **ECON5318 – ECONOMICS OF SPORTS**

**3** Lecture Hours · **0** Lab Hours

Studies the economic structure of sports, with a focus on business issues. Topics include advertising, fan demand, team output decisions, labor relations, league and conference organization, and government regulation. The course is designed for both general business and economics majors. Prerequisite: ECON 5311 or equivalent.

### **ECON5319 – THE GLOBAL ECONOMY**

**3** Lecture Hours · **0** Lab Hours

This course is a study in the growing global economic integration. Tools are developed to undertake a critical examination of globalization from both the international trade and international finance perspectives. Topics include free trade versus fair trade, government policy harmonization, exchange rate policy, common currency areas, and spillover effects from economic shocks. Particular emphasis is placed on government's role in functioning of the international economic system. Prerequisite: ECON 5311

### **ECON5321 – INTERNATIONAL TRADE AND THE GLOBAL MARKETPLACE**

**3** Lecture Hours · **0** Lab Hours

The course provides an understanding of international trade (movement of goods and services) and investment (cross-border movement of assets) theories. It is designed to understand better the implications of such theories as they relate to international business management. It helps managers deal with the opportunities and challenges created by the global environment. The course uses relevant materials in the form of lectures, case studies, and analysis of a range of international issues confronting international trade and investment. Prerequisite: ECON 5311 or equivalent.

### **ECON5327 – INTERNATIONAL FINANCE AND OPEN ECONOMY MACROECONOMICS**

**3** Lecture Hours · **0** Lab Hours

Study of international money and capital markets. Determination of output, balance-of-payments and exchange rates under different monetary and exchange rate regimes. Exchange rate intervention by central banks and exchange rate systems in developing countries are also discussed. Prerequisite: ECON 5311



**ECON5329 – RESEARCH METHODS IN APPLIED ECONOMICS****3** Lecture Hours · **0** Lab Hours

Each student presents a replication of a published article that uses methods from Econometrics I/II, Forecasting and/or Time Series. The instructor will present replications of several published papers and assist students in choosing studies that they will attempt to replicate. Class meetings will focus on answering specific questions that arise as students carry out their replication exercises. The course concludes with student presentations, along with submission of a written report summarizing the replication effort and detailing the extent to which published results were replicable. The goal is to develop the skills to write quality papers using a variety of statistical techniques. Prerequisite: ECON 5336 or BSAD 6317.

**ECON5330 – HUMAN RESOURCE ECONOMICS****3** Lecture Hours · **0** Lab Hours

This course studies labor supply decisions made by households, labor demand decisions made by firms, and the equilibrium wage differences that result from these decisions. Other topics include unemployment, human capital investments, efficiency wages and other incentive schemes, inequality, labor mobility and migration, and discrimination. Prerequisites: ECON 5311 or equivalent.

**ECON5331 – URBAN ECONOMICS****3** Lecture Hours · **0** Lab Hours

This course examines the market forces that cause people and firms to cluster in urban places and the externalities resulting from this process. The tools of microeconomics are used to analyze urban issues such as poverty, crime, housing, and transportation. Attention is also given to the spatial aspects of local government policy. Prerequisites: ECON 5311 or equivalent.

**ECON5332 – GOVERNMENT, TAXES AND BUSINESS STRATEGY****3** Lecture Hours · **0** Lab Hours

The interaction between government and business is broad. Effective business leadership requires the ability to analyze and respond to public policy. Economics provides a framework for understanding the incentives of consumers, businesses, bureaucrats and civil servants in different policy environments and predicting their behavior in response to policy changes. This course focuses primarily on tax policy at the federal, state and local levels, including issues in corporate taxation, personal income tax, treatment of capital gains and losses, tax incidence, work-leisure choices, fiscal competition among state and local governments, capital flight and fiscal federalism. Prerequisite: ECON 5311

**ECON5333 – ECONOMICS OF HEALTH****3** Lecture Hours · **0** Lab Hours

An economic perspective on a variety of timely health policy issues, including: health expenditures, public and private insurance, incentives, provider education and labor markets, hospitals, prescription drugs, malpractice, externalities, long-term care, the Internet, and various proposals for reform. Prerequisite: ECON 5311 or equivalent.

**ECON5336 – ECONOMETRICS****3** Lecture Hours · **0** Lab Hours

Develops an understanding of statistical and econometric techniques so participants can evaluate claims made by others, come to their own conclusions, and make better judgments about future events. Students learn to use statistical packages such as Excel and Stata to apply these techniques to real data for the formulation of solutions to practical managerial decision making. Topics include descriptive statistics, statistical inference, simple and multiple regression analysis, heteroskedasticity, endogeneity, serial correlation, specification and data issues, functional forms, and basic limited dependent variable models. Prerequisites: BSTAT 5301 or BSTAT 5325.

**ECON5337 – BUSINESS & ECONOMIC FORECASTING****3** Lecture Hours · **0** Lab Hours

Course uses statistical techniques to develop forecasts for economic and financial data. It begins with a description of what a forecast is and the tools necessary to evaluate competing forecasts. Forecasting models are introduced, with emphasis placed on modeling the statistical properties of the economic data

under consideration. As the models become more elaborate, we introduce ARMA models, forecasts based on regression analysis, and multivariate techniques. Students will understand statistical techniques related to modeling economic and financial data over time. One will be able to develop a model to forecast economic or financial data and be able to compare the relative forecasting ability of various models and choose the most appropriate model among alternatives. Students gain familiarity with the programs such as EViews and learn to use such software to develop and analyze forecasts. Prerequisite: ECON 5336 or BSAD 6317.

### **ECON5338 – APPLIED TIME SERIES**

**3** Lecture Hours · **0** Lab Hours

Provides an introduction to univariate and multivariate methods in time series econometrics. A foundation will be given to univariate analysis of stationary and non-stationary time series. Box-Jenkins and forecast methods are discussed. Asymptotic theory and limit theorems for dependent and independent processes will be clarified. The asymptotics of non-stationary processes is presented to demonstrate the distribution theory for time series processes with unit roots. Modeling conditional volatility using GARCH (generalized autoregressive conditional heteroskedasticity) specifications are covered. Tools and concepts for multivariate models are presented including the vector autoregressive model for stationary and non-stationary data, cointegration, impulse response functions, and structural VAR (vector autoregression) modeling. Other topics covered include panel unit root and cointegration testing procedures, HAC (heteroskedasticity-autocorrelation consistent covariance estimators), and nonlinear time series models. Prerequisite: ECON 5336 or BSAD 6317.

### **ECON5339 – ECONOMETRICS II**

**3** Lecture Hours · **0** Lab Hours

This covers cross section, panel data, and limited dependent variables methods. Focus on advanced econometric techniques needed for empirical research by study of underlying theory and the application of techniques on real data sets. Students learn to understand problems that arise from different data. They should obtain the skills to assess the work in the literature, and to improve and apply the techniques to their own research or data analysis. Topics include bootstrapping, panel data methods, instrumental variable estimation, simultaneous equation models, limited dependent variable models and sample selection corrections, propensity score matching methods, quantile regression, and dynamic panel data models. Material covered has many practical applications in various fields. Prerequisites: ECON 5336 or BSAD 6317.

### **ECON5341 – PROFESSIONAL APPLIED ECONOMIC ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A capstone course that completes the analytical tool-kit series that provide the skills needed to originate professional analytical work in business and economics from the point of developing hypotheses, to developing a statistical model, to doing empirical analysis, to writing and presenting the final product. Students will help critique each other's work as it is presented during class meetings where the instructor will also present guidance. The grade is based upon the quality of the paper produced. Prerequisite: ECON 5339.

### **ECON5382 – INDEPENDENT STUDIES IN ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of an economic topic. Prerequisite: Departmental Permission Required.

### **ECON5391 – SPECIAL TOPICS IN ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in economics. May be repeated when topics vary. Prerequisite: Departmental Permission Required.

### **ECON5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Prerequisite: Permission of Graduate Advisor in Economics.

### **ECON5399 – GRADUATE ECONOMICS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in economics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **ECON5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: Permission of Graduate Advisor in Economics.

### **ECON5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: Permission of Graduate Advisor in Economics.

### **ECON6310 – ADVANCED MICROECONOMIC THEORY**

**3** Lecture Hours · **0** Lab Hours

Investigates the advanced neoclassical theory of microeconomics. The course develops formal models of consumer behavior, market structure, general equilibrium and welfare. The objective of the course is to acquaint students with the analytical tools necessary to evaluate the formal literature in economics and to conduct scientific, hypothesis-driven statistical studies. Prerequisites: ECON 5301 and ECON 5310.

### **ECON6312 – ADVANCED MACROECONOMIC THEORY**

**3** Lecture Hours · **0** Lab Hours

Topics include dynamic general equilibrium analysis of model economies, monetary theory in overlapping generations models, advanced growth theory and new open-economy macroeconomics. Prerequisites: ECON 5301 and ECON 5312.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Finance and Real Estate

College of Business

### Chair John David Diltz

Web [www.uta.edu/finance/](http://web.uta.edu/finance/)

Phone 817.272.3705

Fax 817.272.2252

**434 Business Building**

---

### Degrees / Certificates

#### Master's Degrees

Quantitative Finance, M.S.

Real Estate, M.S.

#### Doctoral Degrees

Finance (Business Administration), Ph.D.

#### Certificates

Real Estate Development Certificate – [Gainful Employment Disclosure](#)

---

### Graduate Faculty

**John Dowdy**

#### Professor

**John David Diltz**

#### Associate Professor

**Darren Hayunga**

**Sanjiv Sabherwal**

**Salil Sarkar**

#### Assistant Professor

**John Adams**

**Necmettin Gormus**

**Arun Narayanasamy**

#### Assistant Adjunct Professor

**Daniel Lowrance**

#### Professor Emeritus

**Vincent Apilado**

#### Clinical Professor

**Fred Forgey**

#### Lecturer

**Lee Schwemer**

---

## Graduate Advisors

### John David Diltz

*Quantitative Finance, M.S.*

### Fred Forgey

*Real Estate, M.S.*

### Gregory Frazier

*Finance (Business Administration), Ph.D.*

### Salil Sarkar

*Finance (Business Administration), Ph.D.*

### Chandra Subramaniam

*Quantitative Finance, M.S.*

*Quantitative Finance, Non-Degree Seeking*

---

## Department Information

### Courses

# Department Information

## Objective

### Master of Science in Quantitative Finance

- [Accreditation](#)
- [Admission - Master of Science in Quantitative Finance](#)
- [Degree Requirements](#)

### Master of Science in Real Estate

- [Accreditation](#)
- [Admission - Master of Science in Real Estate](#)
- [Degree Requirements](#)
- [Fast Track Programs](#)

### Graduate Certificate in Real Estate Development

- [Objective](#)
- [Admission](#)
- [Course Requirements](#)

## Objective

The Department of Finance and Real Estate participates in several graduate degree programs including the Ph.D. in Business Administration, the Master of Business Administration, the Master of Science in Quantitative Finance and the Master of Science in Real Estate. In the Ph.D. in Business Administration, courses in finance and real estate prepare students for careers in teaching, research, business, and government. Finance is offered in the M.B.A. program as a concentration (see Interdepartmental and Intercampus Programs for degree requirements). The M.S. in Quantitative Finance provides an in-depth exposure to the quantitative aspects of finance. The M.S. in Real Estate provides students in-depth training in real estate decision making.

## Master of Science in Quantitative Finance

The Master of Science in Quantitative Finance degree program is designed to meet the growing demand for financial professionals equipped to implement state-of-the-art analytical techniques in support of financial decision-making. Students complete a rigorous seven-course sequence that includes: finance theory, mathematical finance, financial modeling, economic theory, and econometrics. Students then complete a five-course elective program designed jointly by the student and the program advisor. The Master of Science in Quantitative Finance degree program is a specialized degree program designed to build upon the candidate's prior background.

### Accreditation

The Master of Science in Quantitative Finance is accredited by the AACSB-The International Association for Management Education.

### Admission - Master of Science in Quantitative Finance

Admission to the M.S. in Quantitative Finance (MSQF) program is based upon the completion of the general admission requirements of the Graduate School. For admission into the MSQF program, an acceptable score in the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and acceptable undergraduate performance are required. The GMAT is strongly preferred. Preference is given to individuals having extensive mathematics or computer science backgrounds. Students whose native language is not English must also take the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). International applicants scoring below acceptable levels on verbal portions of entrance examinations may be admitted conditional upon passing an English proficiency exam or upon completing the University's Graduate English Skills Program prior to beginning graduate coursework. The GMAT or GRE score shall not be used as the sole criterion for admitting applicants or the primary criterion for denying an applicant's admission into the MSQF program. Specifically, multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below, and the decision to deny admission is not based on any single criterion.

Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate GPA of at least 3.0 on a 4.0 scale as calculated by the Graduate School. The grade point average is calculated on your undergraduate degree using approximately the last 60 hours. A graduate grade point average is used in the index along with GMAT scores when it is a 3.0 or above and based on at least 24 hours.
2. GMAT or GRE sub-scores (verbal and quantitative) are also considered in the admission decision. A typical successful candidate will score at or above the 75th percentile on the quantitative portion, and at or above the 40th percentile on the verbal portion of either exam.
3. International Applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
4. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
5. Mathematics coursework through multivariate calculus (calculus III).
6. A satisfactory 200 word essay outlining the role that the MSQF degree is intended to play

in the applicant's career objectives.

7. Positive letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential for success in graduate school.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

### **Unconditional Admission**

For unconditional admission, items 1 through 6 above should indicate strongly the potential for successful academic performance at the Master's level. Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT or GRE) will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### **Probationary Admission**

An applicant deemed deficient in one or more of the above criteria may be considered for probationary admission upon careful review of his/her materials. An applicant admitted under this provision shall be expected to complete his/her first 12 hours of coursework with a grade of B or better.

### **Provisional, Deferred and Denied Admission**

Provisional admission may be granted if an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements. A deferred decision may be granted when a file is incomplete or when denial is inappropriate.

An applicant will likely be denied admission when three or more of items one through six above indicate lack of potential for success in the program. All applicant data will be evaluated carefully before a denial is issued.

### **Degree Requirements**

The M.S. in Quantitative Finance is designed to provide a specialized, highly analytical graduate education to financial managers, financial analysts, and technical personnel. The program consists of 36 credit hours of coursework in finance, economics, mathematics, statistics, and computer science. All students will complete a twenty-one-hour set of foundation classes consisting of:

ECON 5310 Microeconomic Theory  
FINA 5323 Investments  
FINA 5327 Financial Derivatives  
FINA 5330 Real Options  
FINA 5350 Mathematical Finance  
FINA 5351 Financial Modeling  
FINA 5392 Financial Econometrics

The remaining fifteen-hours of coursework are selected by the student, subject to the approval of the program advisor. Courses will be chosen from a list that includes: (1) finance elective classes (international finance, financial institutions, capital markets, real options, and capital budgeting), (2) economics (macroeconomic theory, econometrics, time series analysis), (3) mathematics (advanced calculus, real analysis, differential equations, stochastic processes, and numerical methods), (4) statistics (probability theory, mathematical statistics), and (5) computer science (programming languages, numerical methods, parallel processing, software engineering).

Students who do not have the appropriate background may have to take additional foundation coursework. Quantitative background appropriate to begin the MSQF program consists of a



minimum of 6 credit hours of calculus and 3 credit hours each in linear algebra, statistics, and computer programming. Other foundation coursework would include at least 3 credit hours each of microeconomics and finance.

## Master of Science in Real Estate

The purpose of the Master of Science in Real Estate degree program is to provide students an opportunity to obtain a better understanding of the mechanics of real estate decision making in modern society and a greater depth of training in the discipline of real estate decision making than is possible at the baccalaureate level. The specific objectives of the program are to prepare students for careers in business, government, research, and teaching and for further graduate study. In this program, students are exposed to the theory, research, and practical applications of numerous real estate content areas, including investment analysis, appraisal, real estate development, primary and secondary mortgage markets, and mortgage backed securities. The Master of Science in Real Estate degree program is a specialized degree program designed to build upon the candidate's background.

### Accreditation

The Master of Science in Real Estate is accredited by the AACSB-The International Association for Management Education.

### Admission - Master of Science in Real Estate

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.0 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GPA by 200 and adds the resulting value to the GMAT Score. An index score greater than 1070 or higher is typical of a successful candidate.
2. GMAT sub scores (verbal and quantitative) are also considered in the admission decision. GMAT sub scores greater than the 30th percentiles are typical of a successful candidate.
3. A GRE quantitative percentile greater than the 30th percentile and Verbal percentile greater than the 30th percentile is typical of a successful applicant.
4. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
5. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
6. Educational objectives and quality of written expression of the 200 word application essay.
7. Letters (2 are required) of recommendation from two persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

Due to the specialized nature of the MSRE, provisional and probationary admission decisions are infrequent options. Furthermore, please note that these are admission decision criteria and not application options (i.e., no one applies for provisional or probationary admissions).

### Unconditional Admission



For unconditional admission, the applicant's composite total from the index must be 1070 or higher and items 1 through 5 above should strongly indicate potential for successful academic performance as a graduate real estate student.

Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as the primary criterion for determining fellowship and/or scholarship eligibility.

#### **Probationary Admission**

For an applicant with an index score below 1070, probationary admission may be available if items 1-10 indicate a potential for successful academic performance as a graduate real estate student. Students who are admitted on probation will have one or more conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study.

#### **Provisional, Deferred and Denied Admission**

A provisional decision to admit may be granted when the applicant meets criteria for unconditional or probationary status but one or more applicant credentials are incomplete. A deferred decision may be made when an applicant's file is not sufficiently complete to make a final admission decision.

For an applicant with an index score less than 1000 and if items 1-10 do not indicate a potential for successful academic performance as a graduate real estate student admission will likely be denied. All applicant data will be carefully reviewed before an admission denial is made.

#### **Waiver of GMAT Score for Graduate Certificate in Real Estate Development Students**

Students who successfully complete the Graduate Certificate in Real Estate Development with a GPA of 3.5 or higher will, upon the recommendation of the Graduate Advisor and the Dean of Graduate Studies, be granted a waiver of the GMAT requirement for their application to the Master of Science in Real Estate program.

### **Degree Requirements**

The program, which can be completed by part-time students who attend classes during the late afternoon, evening hours, and Saturdays, is designed to accommodate students with divergent educational backgrounds and career interests. Each student's program of work must be approved by the Real Estate Graduate Advisor and it must contain a minimum of 15 semester hours in approved advanced graduate real estate courses taken at The University of Texas at Arlington.

A minimum of 36 semester hours is required. All classes must be approved by the Graduate Advisor in Real Estate. Students who do not have a bachelor's degree in business administration may have to take additional coursework (up to 3 semester hours) to acquire a sufficient general business foundation. Students may have foundation courses waived by the Graduate Advisor if they have completed equivalent courses.

#### **Foundation Course**

REAE 5311 Real Estate Analysis

#### **Required Courses**

REAE 5314 Seminar in Real Estate Development

REAE 5319 Seminar in Real Estate Finance

REAE 5321 Seminar in Real Estate Investments

REAE 5334 Seminar in Real Estate Appraisal

#### **Advanced Elective Courses**

All other 5000 level REAE courses

A minimum of 36 semester hours including six hours of thesis (REAE 5698 Thesis) is required if the student chooses to write a thesis. The thesis hours will involve working closely with one or more members of the graduate faculty from the Department of Finance and Real Estate on a research project in a specialized area of interest in real estate.

### Fast Track Programs

The Fast Track Program enables outstanding undergraduate UT Arlington Business students to satisfy degree requirements that will lead to a Master of Science in Real Estate (MSRE) while completing their undergraduate studies. If admitted, students will be allowed to take select graduate courses that may be used to satisfy both bachelor's and master's degree requirements. Admitted students will be allowed to complete 6 to 9 hours of selected graduate coursework as an undergraduate student. A GPA of 3.0 on the graduate work is required to continue taking graduate courses. Any Fast Track student who completes the 6 to 9 hours of graduate coursework with grades of B or better will be automatically admitted to Graduate School. The student would then be awarded his or her bachelor's degree. The student will not be required to take the GMAT, complete the Graduate School Application, and will have the related application fees waived.

## Graduate Certificate in Real Estate Development

### Objective

In keeping with the mission of The University of Texas at Arlington to provide lifelong learning opportunities, the Department of Finance and Real Estate now offers a Graduate Certificate in Real Estate Development. The Graduate Certificate in Real Estate Development is designed to provide qualified real estate professionals advanced instruction in real estate development and allow them to further their professional development. This post-baccalaureate Certificate provides an educational opportunity that is narrower in scope, and shorter in duration, than graduate degree programs. It is ideal for people transitioning from one sector of real estate into real estate development, or those in the process of satisfying education requirements for various professional real estate licenses.

### Admission

Admissions to the Graduate Certificate in Real Estate Development is based upon the general admission requirements of the graduate school. Generally applicants must have an undergraduate grade point average of at least 2.9 as calculated by the Graduate School. A graduate grade point average is used when the applicant has attained at least 24 graduate semester hours.

Applicants whose undergraduate GPA was less than a 2.9 may still be admitted to the Graduate Certificate in Real Estate Development program by meeting the admissions requirements for the M.S. Real Estate program.

### Course Requirements

The Graduate Certificate in Real Estate Development requires students to take and to complete with a minimum GPA of 3.0, five graduate real estate courses. The structure of the program is:

#### Foundation Course

REAE 5311 Real Estate Analysis

#### Required Courses

REAE 5314 Real Estate Development

REAE 5321 Real Estate Investments

REAE 5319 Real Estate Finance

REAE 5334 Real Estate Appraisal

#### Use of Courses toward Degree Program

Students that initially enroll in the Graduate Certificate in Real Estate Development may later use up to 15 hours of coursework from the Certificate program toward the Master of Science in Real Estate degree.

You may be entitled to know what information The University of Texas at Arlington (UT Arlington) collects concerning you. You may review and have UT Arlington correct this information according to procedures set forth in [UTS139](#). The law is found in sections [552.021](#), [552.023](#) and [559.004](#) of the Texas Government Code. For more information, see our [Privacy Policy](#).

## BLAW Courses

### BLAW5330 – LEGAL ENVIRONMENT OF BUSINESS

3 Lecture Hours · 0 Lab Hours

The basic structure and processes of the legal system are reviewed followed by coverage of key common law areas and major regulatory rules that impact business. The focus is on a working knowledge of the law that has the greatest impact on business today and the social and ethical issues that may be related to legal issues.

### BLAW5331 – LAW OF INTERNATIONAL BUSINESS

3 Lecture Hours · 0 Lab Hours

General principles of law applicable to international business including case law, statutory law, treaties, administrative law, and international agreements.

### BLAW5332 – BUSINESS LAW

3 Lecture Hours · 0 Lab Hours

This course provides the basic legal principles of business organizations and operations, with coverage including the law of contracts (both common law and the law of sales of goods), commercial paper, property (including bailments, documents of title, patents and copyrights), employment law, agency, business organizations, selected topics of government regulation of business (securities regulation, antitrust, and bankruptcy), money laundering, suretyship and creditors' rights, the Dodd-Frank Act of 2010, the Sarbanes-Oxley Act of 2002, and CPA professional responsibility and liability. Prerequisite: BLAW 5330 with a grade of C or higher.

## FINA Courses

### FINA5182 – INDEPENDENT STUDIES IN FINANCE

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a finance topic. Prerequisite: consent of instructor and department chair.

### FINA5199 – GRADUATE FINANCE INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in finance. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### FINA5299 – GRADUATE FINANCE INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in finance. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **FINA5311 – BUSINESS FINANCIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Study of providing the organization with funds necessary for its operation and of achieving effective utilization of funds. Primary emphasis on financial decision-making within organizations, and techniques of financial analysis and forecasting. Prerequisite: ACCT 5301 or departmental permission.

### **FINA5315 – HEALTH CARE FINANCIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Analysis of financial problems with an emphasis on the application of financial management principles and concepts to health care organizations.

### **FINA5323 – INVESTMENTS**

**3** Lecture Hours · **0** Lab Hours

Application of principles and techniques of investment management in solving investment problems of individuals and financial institutions. Considers apportionment of investment funds among alternatives, analysis of risk, valuation timing of security acquisitions. Prerequisite: FINA 5311

### **FINA5327 – FINANCIAL DERIVATIVES**

**3** Lecture Hours · **0** Lab Hours

Nature and functions of the various futures and options markets; hedging for risk reduction, speculative trading for profit; the role of futures and options in overall portfolio strategy, along with fundamental concepts such as basis, spreading, normal and inverted markets and money management. Prerequisite: FINA 5311 and 5323.

### **FINA5329 – PORTFOLIO AND SECURITY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

The use of economic and accounting data in the selection of securities. Examination of current and traditional techniques used by investment practitioners. Prerequisite: FINA 5311 and 5323.

### **FINA5330 – REAL OPTIONS**

**3** Lecture Hours · **0** Lab Hours

Option approaches to evaluating firm capital budgeting decisions. Techniques for making investment decisions involving physical assets of nonfinancial firms. Prerequisite: FINA 5311.

### **FINA5331 – INTERNATIONAL FINANCE**

**3** Lecture Hours · **0** Lab Hours

Examines ways in which financial decision-making processes are altered by operation in a multinational environment. Includes the effects of devaluation expectations, foreign exchange and investment controls. Also, case study materials related to actual decisions by multinational firms. Prerequisite: FINA 5311.

### **FINA5334 – FINANCIAL INSTITUTIONS AND MARKETS**

**3** Lecture Hours · **0** Lab Hours

An examination of major financial institutions and markets with emphasis on trends affecting the current operations, competitive position, and overall future of the primary financial intermediaries and the financial markets. Prerequisite: FINA 5311.

### **FINA5340 – FINANCIAL APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

Analysis of financial problems of business concerns, presented in case materials. Considers determination of capital needs, choosing among alternative capital investments, planning methods of financing new capital expenditures, and planning recapitalizations, mergers, and reorganizations. Prerequisite: FINA 5311.

### **FINA5350 – MATHEMATICAL FINANCE**

**3** Lecture Hours · **0** Lab Hours

Intensive review of the mathematics necessary for graduate work in finance, with application to selected areas of business finance, investment analysis and financial markets. Prerequisite: FINA 5311.

### **FINA5351 – SEMINAR IN FINANCIAL MODELING**

**3** Lecture Hours · **0** Lab Hours

Study of common financial modeling techniques are explored in this course. The primary focus is on portfolio optimization models and models used for pricing and analyzing derivative stock options, although most of these techniques have other applications. Students are provided with the opportunity to develop the skills needed to build financial models of their own. Prerequisite: FINA 5311.

### **FINA5382 – INDEPENDENT STUDIES IN FINANCE**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a finance topic. Prerequisite: departmental permission.

### **FINA5392 – SELECTED TOPICS IN FINANCE**

**3** Lecture Hours · **0** Lab Hours

In depth study of selected topics in finance. May be repeated when topics vary. Prerequisite: departmental permission.

### **FINA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Thesis. 5398 graded R (Research) or F only. Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **FINA5399 – GRADUATE FINANCE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in finance. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **FINA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Thesis. Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **FINA6192 – RESEARCH IN FINANCE**

**1** Lecture Hour · **0** Lab Hours

Independent study of advanced topics in finance under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

### **FINA6292 – RESEARCH IN FINANCE**

**2** Lecture Hours · **0** Lab Hours

Independent study of advanced topics in finance under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

### **FINA6301 – SEMINAR IN THE THEORY OF FINANCE**

**3** Lecture Hours · **0** Lab Hours

Development of the fundamental theories of modern finance from their microeconomic origins. Topics

include: investment under uncertainty, asset pricing models, market equilibrium, market efficiency, and expected utility theory. Prerequisite: FINA 5311.

### **FINA6311 – SEMINAR IN THE THEORY OF CORPORATE FINANCE**

3 Lecture Hours · 0 Lab Hours

Advanced theory of corporate finance. Capital budgeting, dividend policy, and capital structure. Prerequisite: FINA 5311

### **FINA6312 – SEMINAR IN THE THEORY OF INVESTMENTS**

3 Lecture Hours · 0 Lab Hours

Advanced theory of investments. Modern portfolio theory and the efficiency of capital markets. Prerequisite: FINA 5311.

### **FINA6313 – ADVANCED RESEARCH IN FINANCE**

3 Lecture Hours · 0 Lab Hours

Analytical methods commonly applied in the academic finance literature. Topics such as factor analysis in arbitrage pricing models and techniques for identification of nonstationarities in risk. Prerequisite: FINA 5311 and STAT 5301.

### **FINA6314 – ADVANCED RESEARCH IN FINANCE II**

3 Lecture Hours · 0 Lab Hours

Specialized and evolving techniques in financial research; topics such as identification of efficient markets, linear programming in capital budgeting, and multiple discriminant analysis in bankruptcy prediction and bond rating models. Prerequisite: FINA 5311 and STAT 5301.

### **FINA6390 – SEMINAR IN SPECIAL TOPICS IN FINANCE**

3 Lecture Hours · 0 Lab Hours

Doctoral level coverage of advanced topics in finance. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

### **FINA6392 – RESEARCH IN FINANCE**

3 Lecture Hours · 0 Lab Hours

Independent study of advanced topics in finance under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: FINA 5311.

## **REAE Courses**

### **REAE5182 – INDEPENDENT STUDIES IN REAL ESTATE**

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a real estate topic. Prerequisite: departmental permission.

### **REAE5199 – GRAD REAL ESTATE INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Practical training in real estate. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **REAE5299 – GRAD REAL ESTATE INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Practical training in real estate. Analysis of theory applied to real life situations. Course counts as an

elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **REAE5301 – SUSTAINABLE ISSUES IN THE BUILT ENVIRONMENT**

3 Lecture Hours · 0 Lab Hours

A survey-based course that analyzes current and historical sustainability issues. The global and political nature of this evolving discipline is emphasized. Additionally, a macro view of the components currently embodied in the practice of sustainability will be examined and discussed.

### **REAE5302 – SUSTAINABLE STRATEGIES IN THE BUILT ENVIRONMENT**

3 Lecture Hours · 0 Lab Hours

Business strategies that emphasize quantitative methods, asset allocation, socially responsible investing, and evaluation research.

### **REAE5303 – SUSTAINABLE POLICIES IN THE BUILT ENVIRONMENT**

3 Lecture Hours · 0 Lab Hours

Governmental, regulatory, internal reporting, and policy development related to sustainability. Grant writing will also be explored.

### **REAE5304 – SUSTAINABLE PROJECTS IN THE BUILT ENVIRONMENT**

3 Lecture Hours · 0 Lab Hours

A field-based study of buildings, developments, organizations, and companies that exemplify sustainable practices. Course will include elements of social networking and communication strategies.

### **REAE5311 – REAL ESTATE ANALYSIS**

3 Lecture Hours · 0 Lab Hours

Survey of real estate investment, appraisal and valuation, finance, market analysis, and other phases of the real estate development/management process.

### **REAE5312 – INTERNATIONAL PROPERTY MARKETS**

3 Lecture Hours · 0 Lab Hours

Property markets are characterized by significant institutional differences that affect the nature and performance of national markets. Analysis of socio-economic and cultural factors influencing the operation of international markets.

### **REAE5313 – GIS & PROPERTY ANALYSIS**

3 Lecture Hours · 0 Lab Hours

The increasing availability of geographically referenced property data offers significant potential for real estate research and modeling. Covers fundamentals of Geographic Information Systems (GIS) (Concepts, principles, and functions) and essential skills for applying GIS to real estate industry problems.

### **REAE5314 – SEMINAR IN REAL ESTATE DEVELOPMENT**

3 Lecture Hours · 0 Lab Hours

Topics relating to site selection, design, market analysis, financial feasibility, and management in the real estate development process. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5315 – REAL ESTATE TRENDS & ISSUES**

3 Lecture Hours · 0 Lab Hours

Analysis of specialized topics associated with emerging trends and issues in the real estate industry using current literature and case studies.



### **REAE5316 – ADAPTIVE REUSE & REDEVELOPMENT OF COMMERCIAL INVESTMENT REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

The tools and techniques associated with the market and financial feasibility analysis of adaptively reusing and redeveloping existing properties into economically viable commercial investment real estate.

### **REAE5317 – REAL ESTATE CONSTRUCTION MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Topics relating to construction management for commercial investment real estate.

### **REAE5318 – SUSTAINABLE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Sustainability perspectives about values, rights, property and what constitutes an optimum human environment; sustainability principles and case studies emphasizing on-the-ground, incentive-based commercial investment real estate development that balances economic growth with environmental quality. Projects will include those in urban areas as well as those in rural areas focusing on agricultural elements.

### **REAE5319 – SEMINAR IN REAL ESTATE FINANCE**

**3** Lecture Hours · **0** Lab Hours

Study of real property financing methods; analysis of cost of borrowing, sources of funds, and mortgage terms; emphasis on construction and permanent financing of commercial and industrial properties. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5320 – TEXAS REAL ESTATE STUDY TOUR**

**3** Lecture Hours · **0** Lab Hours

A field-based study of Texas real estate markets, focusing on projects in Austin, San Antonio, Houston, and Dallas-Fort Worth.

### **REAE5321 – SEMINAR IN REAL ESTATE INVESTMENT**

**3** Lecture Hours · **0** Lab Hours

Introduction to analytical techniques, sources of financing, and other factors related to real estate investment. Stresses current developments and topics. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5322 – COMMERCIAL LEASE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Application of critical occupancy decisions such as comparative lease analysis, lease vs. purchase analysis, lease buyout analysis, and sale-leaseback analysis to optimize user space decisions.

### **REAE5323 – REAL ESTATE PROJECT STUDIO**

**3** Lecture Hours · **0** Lab Hours

Studio based course focused on a commercial real estate project.

### **REAE5324 – REAL ESTATE ECONOMICS**

**3** Lecture Hours · **0** Lab Hours

A review of the nature of urban areas and the development of the urban economics as an economic discipline. Emphasis will be on identifying location patterns in urban areas, policy issues, real estate and urban housing options, government issues in urban areas, and urban social problems. Students will utilize data analytics and projective techniques in developing projects based on current local urban real estate issues and opportunities.



### **REAE5327 – ADVANCED REAL ESTATE MARKET ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Study of advanced market analysis techniques and methods, including trend analysis and demand forecasting. Emphasis is on the application of these methods to commercial property markets.

### **REAE5334 – SEMINAR IN REAL ESTATE APPRAISAL**

**3** Lecture Hours · **0** Lab Hours

Market, cost, and income approaches with stress on income forecasting and capitalization. Prerequisite: FINA 5311 or REAE 5311.

### **REAE5337 – REAL PROPERTY LAW**

**3** Lecture Hours · **0** Lab Hours

Legal property theory underlying real estate transactions and relationships including estates and interests in land, conveyances, and mortgages.

### **REAE5350 – QUANTITATIVE METHODS FOR REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Study of advanced statistical, modeling, and econometric techniques as applied to real estate markets. Emphasis on the integration of these techniques with traditional real estate analysis.

### **REAE5382 – INDEPENDENT STUDIES IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a real estate topic. Prerequisite: departmental permission.

### **REAE5392 – SELECTED TOPICS IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in real estate. May be repeated when topics vary. Prerequisite: REAE 5311.

### **REAE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: departmental permission.

### **REAE5399 – GRAD REAL ESTATE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in real estate. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **REAE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: departmental permission.

### **REAE6390 – SEMINAR IN SPECIAL TOPICS IN REAL ESTATE**

**3** Lecture Hours · **0** Lab Hours

Doctoral level coverage of advanced topics in real estate. May be repeated for credit when topics vary. Prerequisite: REAE 5311.

### **REAE6392 – RESEARCH IN REAL ESTATE**

**3 Lecture Hours · 0 Lab Hours**

Independent study of advanced topics in real estate under the direction of graduate faculty. May be repeated for credit when topics vary. Prerequisite: REAE 5311.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax 817.272.1494  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- [Home](#)
- [Degree Requirements](#)
- [Fields of Study](#)
  - [School of Architecture](#)
  - [College of Business](#)
    - [Accounting](#)
    - [Business Administration](#)
    - [Economics](#)
    - [Finance and Real Estate](#)
    - [Health Care Administration](#)
    - [Information Systems & Operations Management](#)
    - [Management](#)
    - [Marketing](#)
  - [College of Education and Health Professions](#)
  - [College of Engineering](#)
  - [College of Liberal Arts](#)
  - [College of Nursing](#)
  - [College of Science](#)
  - [School of Social Work](#)
  - [School of Urban and Public Affairs](#)
- [Admissions Requirements & Procedures](#)
- [General Information & Regulations](#)
- [Graduate Calendar](#)
- [Graduate Faculty](#)
- [Table of Contents](#)
- [Index](#)

## Health Care Administration

College of Business

Web [www2.uta.edu/gradbiz/healthadmin/](http://www2.uta.edu/gradbiz/healthadmin/)

Email [hcad@uta.edu](mailto:hcad@uta.edu)

Phone 817.272.1287

Fax 817.272.0339

**701 S West Street**

---

### Degrees / Certificates

#### Master's Degrees

Healthcare Administration, M.S.

#### Certificates

Health Care Administration Certificate

---

### Graduate Faculty

#### Director

[Demetria Wilhite](#)

#### Clinical Professor

[Mike West](#)

---

### Graduate Advisors

#### [Chandra Subramaniam](#)

*Health Care Administration, Non-Degree Seeking*

*Healthcare Administration, M.S.*

#### [Demetria Wilhite](#)

*Healthcare Administration, M.S.*

---

### Department Information

#### Courses

## Department Information

---

## Objectives

### Admission

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional, Deferred and Denied Admission**

### Degree Requirements

#### Graduate Certificate Program

- **Admission**
- **Program of Study**
- **Transfer to the M.S. Program**

#### Integrated Degree Plans

- **Bachelor of Science in Biology and Master of Science in Health Care Administration**

#### Dual Degree Program

- **Master of Science in Health Care Administration and Master of Science in Nursing**

## Objectives

The program in Health Care Administration is designed to provide graduate students an integrated, contemporary, and multidisciplinary education. Diverse topics are integrated into the curriculum, research and residencies to provide:

1. An understanding of the modern health industry
2. Knowledge, skills and abilities to assume administrative roles in various organizations in the health industry
3. Opportunities to develop leadership skills
4. Interactions with diverse specialists in the health industry to evaluate and resolve administrative problems

## Admission

Admission to the M.S. in Health Care Administration (HCAD) program is based upon the completion of the general admission requirements of the Graduate School. For HCAD program admission a score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and record of one's undergraduate academic performance are required. Students for whom English is not their native language must achieve a TOEFL score of at least 575 (paper-based) or 230 (computer-based). International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework. Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. A standardized test score (GMAT or GRE) will not be used as the sole criterion for admitting applicants or the primary criterion for denying an applicant's admission to the HCAD program.

Multiple criteria are used to make admission decisions. Quantitative measures include an applicant's GMAT or GRE scores and grade point average as calculated by the Graduate School. These measures are integrated into a formula, or index, that multiplies the grade point average by 200 and adds the total GMAT score. Index factors are weighed equally at the outset of applicant evaluation. A graduate grade point average is used in the index when it is 3.0 or above and is based on at least 24 semester hours. For unconditional admission, the applicant's composite total from the index must be 1050 or higher and items 1 through 5 above should strongly indicate

potential for successful academic performance as a graduate health care administration student.

Along with grade point average and GMAT or GRE scores, admission criteria include the following:

1. GMAT or GRE sub scores (verbal and quantitative)
2. GMAT or GRE writing sample
3. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
4. Educational objectives and quality of written expression of the application essay
5. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience
6. Undergraduate Major
7. General and specific program accreditation status of degree granting institution
8. Professional work experience
9. Professional certification or licensure
10. A personal interview, at the discretion of the program advisor

### **Unconditional Admission**

The GMAT or GRE test may be waived for applicants with an earned graduate degree in an appropriate health care related discipline or profession.

The GMAT or GRE test may also be waived for applicants with five or more years of increasing responsibility in managerial, professional, and/or technical positions in the health care industry, and with a 3.0 grade point average on undergraduate work as calculated by the Graduate School; detailed work history required with application.

The GMAT or GRE test may also be waived for applicants who have (within the last 3 years) or will receive an undergraduate degree from UT Arlington with a GPA of 3.2 or higher, as calculated by the graduate school.

Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.0 as calculated by the Graduate School (or 3.0 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT or GRE) will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### **Probationary Admission**

For an applicant with an index score below 1050, probationary admission may be available when at least three items of 1 through 5 above strongly indicate potential for successful academic performance as a graduate health care administration student. Items 6 through 10 will also be used to identify positive indicators for admission. Students who are admitted on probation will have one or more conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study.

### **Provisional, Deferred and Denied Admission**

A provisional decision to admit may be granted when the applicant meets criteria for unconditional or probationary status but one or more applicant credentials are incomplete. A deferred decision may be made when an applicant's file is not sufficiently complete to make an admit or deny decision.

For an applicant with an index score less than 1000 and other evidence that indicates lack of potential for academic success as a graduate health care administration student, admission will likely be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

## Degree Requirements

The M.S. Degree in health Care Administration requires 39 hours of specified coursework. The thirteen courses are normally taken in the following sequence.

1. HCAD 5301 Health Care Administration I
2. HCAD 5337 Human Resources Management, Ethics, Leadership, and Teamwork
3. HCAD 5305 Financial Accounting for Health Care Industry
4. HCAD 5306 Managerial Accounting for Health Care Industry
5. FINA 5315 Health Care Financial Management
6. HCAD 5310 Health Care Law
7. INSY 5350 Health Care Information Systems
8. OPMA 5377 Health Care Quality Assessment
9. BSTA 5315 Statistical Methods for Health Care Administrators
10. MARK 5330 Service Marketing Management
11. ECON 5333 Economics of Health
12. HCAD 5390 Strategic Management of Health Care Organizations
13. HCAD 5399 Residence/Internship

Together these courses provide the student with a general background in business and economics and industry relevant knowledge in all of the fundamental areas of managing health care organizations. The residence or internship course requirement can be satisfied in either of two methods. The residence options are as follows:

**Working Residence/Internship.** The completion of a residence/Internship is a primary component of the program for students who do not have prior appropriate professional work experience in a health-related organization. The residence provides students the opportunity to acquire firsthand professional knowledge of and experience with the functioning of a health-related organization. The working residence requires the completion of 240 hours of approved work experience in a professional capacity and a final written report, related to the student's residence, supervised by a member of the faculty of the degree program. The Graduate Advisor will provide overall supervision and coordination of the residence.

**Residence/Internship Substitute.** A student who has substantial and acceptable work experience in a supervisory or professional position may qualify for the residence substitute. Work experience is approved by the Graduate Advisor. Accordingly, a student may request:

**Option I.** Design, conduct and complete a supervised research project, an effort equivalent in scope to three (3) hours of graduate research-oriented courses, that is highly relevant to the student's intended future professional focus in lieu of a working residence; the project will be supervised by at least one member of the faculty of the degree program, or

**Option II.** Complete an approved graduate course with significant research content highly relevant for the student's intended future professional field of specialty.

## Graduate Certificate Program

### Admission

The certificate program is available to any student who has been admitted into the Graduate School at UT Arlington. The student should contact the Graduate Advisor to declare the intent to earn the certificate before enrolling in courses to satisfy certificate requirements.

### Program of Study

The certificate requires the completion of at least 12 hours of courses selected from HCAD 5301, HCAD 5310, HCAD 5390, ECON 5333, HCAD 5306, FINA 5315, INSY 5350, or MARK 5330 as

approved by the Graduate Advisor. A grade of A or B must be received for all courses that can be applied to meet certificate requirements.

### Transfer to the M.S. Program

A student in the Certificate Program must apply for admission and meet all admission requirements to enter the M.S. program.

## Integrated Degree Plans

### Bachelor of Science in Biology and Master of Science in Health Care Administration

A five-year curriculum designed to prepare students for careers in health care administration. The curriculum also prepares students for medical school and advanced study. Students are required to take courses from life sciences, business and liberal arts, culminating in a five-year Master of Science Degree in Health Care Administration (HCAD), including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Business and the College of Science. The BS in Biology will be conferred at the same time that the student is awarded the MS in Health Care Administration. If a student engaged in this joint degree program is not accepted into the HCAD graduate program, or enters the HCAD program and fails to complete the requirement for the master's degree in HCAD, then in order to earn a BS in Biology, the student must take the same, full complement of courses required to earn the BS as taken by students not enrolled in the BIOL/HCAD joint program.

Students interested in this integrated undergraduate and graduate degree plan should consult with the Biology undergraduate advisor and the Health Care Administration graduate advisor.

## Dual Degree Program

### Master of Science in Health Care Administration and Master of Science in Nursing

The College of Business and the School of Nursing offer a dual degree consisting of the M.S. in Health Care Administration and the Master of Science in Nursing. Both degrees focus on administration and health care content and can be completed with a minimum of 56 hours total. Students can expand their knowledge and skills of nursing while also preparing themselves for administrative positions in a variety of health care organizations. Persons interested in pursuing both degrees simultaneously should review the dual degree arrangements presented in the introductory sections of the catalog and consult with both the advisor of the M.S. in Nursing and the advisor of the M.S. in Health Care Administration.

## HCAD Courses

### HCAD5192 – SPECIAL TOPICS IN HEALTH CARE ADMINISTRATION

1 Lecture Hour · 0 Lab Hours

In-depth study of selected topics in health care administration.

### HCAD5199 – GRADUATE HEALTH CARE ADMINISTRATION INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in health care administration. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

## **HCAD5292 – SPECIAL TOPICS IN HEALTH CARE ADMINISTRATION**

**2** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in health care administration.

## **HCAD5299 – GRADUATE HEALTH CARE ADMINISTRATION INTERNSHIP**

**2** Lecture Hours · **0** Lab Hours

Practical training in health care administration. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

## **HCAD5301 – HEALTH CARE ADMINISTRATION I**

**3** Lecture Hours · **0** Lab Hours

Introduction to health care; legislation; reimbursement systems; characteristic administrative and clinical roles responsibilities and education; public health care structures; regulatory agencies; health industry trends; and advances in research and technologies.

## **HCAD5302 – HEALTH CARE ADMINISTRATION II**

**3** Lecture Hours · **0** Lab Hours

Managed care; types of health care delivery systems; national health care policy; teamwork in primary care; management of cost and quality of care; legal issues; ethical issues, including bioethics and business ethics; changing roles of health care professionals; varieties of domestic, public and international health care delivery systems.

## **HCAD5305 – FINANCIAL ACCOUNTING FOR HEALTH CARE INDUSTRY**

**3** Lecture Hours · **0** Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of financial accounting for health care industry.

## **HCAD5306 – MANAGERIAL ACCOUNTING FOR HEALTH CARE INDUSTRY**

**3** Lecture Hours · **0** Lab Hours

Introduction to concepts, purposes, problems, methodology, and terminology of managerial accounting for health care industry. Prerequisite: HCAD 5305.

## **HCAD5310 – HEALTH CARE LAW**

**3** Lecture Hours · **0** Lab Hours

Coverage of statutory and case law of the health care industry. Topics include patient rights and malpractice, employment and compensation matters, insurance and claims, and government agencies that regulate aspects of health services delivery.

## **HCAD5337 – ETHICS, LEADERSHIP, AND TEAMWORK**

**3** Lecture Hours · **0** Lab Hours

Examines the leadership process, change management, and high-performance team-building strategies. Emphasis will be placed on the development of self-awareness and skills necessary to lead. Identification of values and ethical issues in health care administration will also be stressed through the application of ethical principles and theories of decision making in the analysis of ethical dilemmas.

## **HCAD5390 – STRATEGIC MANAGEMENT FOR HEALTH CARE ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

Development of skills necessary for managing health care organizations from a strategic perspective. Particular emphasis is given to the use of systematic assessment of the environment and the organization,



as well as the development and implementation of business strategies to meet the needs of stakeholders. Must be taken in last semester of with permission of the Graduate Advisor.

### **HCAD5392 – SPECIAL TOPICS IN HEALTH CARE ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in health care administration.

### **HCAD5398 – RESEARCH IN HEALTH CARE ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of a faculty member.

### **HCAD5399 – GRADUATE HEALTH CARE ADMINISTRATION INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in health care administration. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Information Systems & Operations Management

College of Business

### Chair Gregory Frazier

Web [www.uta.edu/insyopma/](http://www.uta.edu/insyopma/)  
Email [insy.om@uta.edu](mailto:insy.om@uta.edu)  
Phone 817.272.3502  
Fax 817.272.5801

[535 Business Building](#)

---

### Degrees / Certificates

#### Master's Degrees

Business Analytics, MS  
Information Systems, M.S.

#### Doctoral Degrees

Information Systems (Business Administration), Ph.D.  
Mathematical Sciences, Information Systems, Ph.D.

---

### Graduate Faculty

[Kay yut Chen](#)

#### Professor

[Revenor Baker](#)  
[Mark Eakin](#)  
[Gregory Frazier](#)  
[Radha Mahapatra](#)  
[M K Raja](#)  
[Craig Slinkman](#)  
[James Teng](#)  
[Mary Whiteside](#)

#### Associate Professor

[Alan Cannon](#)  
[Sridhar Nerur](#)  
[Edmund Prater](#)  
[Riyaz Sikora](#)  
[Jingguo Wang](#)  
[Jie Zhang](#)

#### Senior Lecturer

[Carolyn Davis](#)

---

## Graduate Advisors

### Carolyn Davis

*Information Systems, M.S.*

### Gregory Frazier

*Information Systems (Business Administration), Ph.D.*

### Radha Mahapatra

*Information Systems (Business Administration), Ph.D.*

### Chandra Subramaniam

*Information Systems, M.S.*

*Information Systems, Non-Degree Seeking*

---

## Department Information

### Courses

# Department Information

### Objective: Master of Science in Information Systems

### Objective: Ph.D. in Business Administration Program

### Admission: M.S.I.S. Program

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional, Deferred and Denied Admission**

### Degree Requirements

- **Waivers and Transfer Credit**

## Objective: Master of Science in Information Systems

The objective of the Master of Science degree in Information Systems is to provide qualified students with both a general knowledge of business and a specialized knowledge of information systems. Students are exposed to the theory, research, and practical applications of numerous information systems areas including management information systems, database management systems, systems analysis and design, and data communications; and may take electives in distributed systems, information resource management, general systems concepts, electronic commerce, ERP, decision support systems, problem formulation, computer science, management sciences, research, and other related fields. The program is designed to prepare students for information systems careers in government and nonprofit organizations as well as in business and industry.

## Objective: Ph.D. in Business Administration Program

The objective of the Ph.D. degree in Business Administration (with majors in information systems, operations management, or business statistics) is primarily to develop scholars with an ability to teach and conduct independent research. This is accomplished through a combination of rigorous coursework and research activities. This course provides fundamental knowledge in the various areas of information systems, and offers insights into research topics of interest to IS researchers. The research interests of our INSY faculty members encompass technical, managerial, and

organizational issues dealing with the development and deployment of information systems.

For a concentration in Operations Management (OPMA), coursework addresses various areas of the field, such as supply chain management, service operations, quality management, and inventory management. The goal of the OPMA Ph.D. program is to provide students with a balanced set of research methods and concepts to better understand and analyze operational problems and issues. Research approaches include empirical methods, conceptual techniques, and modeling.

For a concentration in Business Statistics (STAT), coursework can be taken in a wide variety of statistical areas focusing on different statistical approaches and techniques. Some STAT coursework can be taken from different departments across the university, as appropriate for the student's interests. The goal of the STAT Ph.D. program is to provide students with fundamental knowledge of common statistical approaches and techniques used in business analysis and research for improved decision-making.

### **Admission: M.S.I.S. Program**

Admission to the M.S. in Information Systems (MSIS) program is based upon the completion of the general admission requirements of the Graduate School. For admission into the MSIS program an acceptable score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and acceptable academic undergraduate performance are required. The GMAT is strongly preferred. The GMAT or GRE test may be waived for applicants with an earned graduate degree in an appropriate information systems related discipline or profession. The GMAT or GRE test may also be waived for applicants with five or more years of increasing responsibility in managerial, professional, and/or technical positions in the information systems or related field, and with a 3.0 grade point average on undergraduate work as calculated by the Graduate School; detailed work history required with application. The GMAT or GRE test may also be waived for applicants who have (within the last 3 years) or will receive an undergraduate degree from UT Arlington in a related field with a GPA or 3.0 or higher, as calculated by the graduate school.

Students for whom English is not their native language must take the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework.

A standardized test score (GMAT or GRE) will not be used as the sole or primary criterion for determining an applicant's admission to the MSIS program. Specifically, multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to deny admission is not based on any single criterion.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.00 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GMAT by 200 and adds the resulting value to the GMAT score. An index score greater than 1080 is typical of a successful candidate. The grade point average is calculated on your undergraduate degree using approximately the last 60 hours. A graduate grade point average is used in the index when it is 3.0 or above and is based on at least 24 hours.
2. Either the GMAT or the GRE will be considered for an admission decision. Both Quantitative and Verbal percentiles above the 40th percentile on the GRE and the 30th percentile on the GMAT indicate the ability to be successful in the MSIS program.
3. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with

sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.

4. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
5. Educational objectives and quality of written expression of the 200 word application essay.
6. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
7. General and specific program accreditation status of degree granting institution.
8. Professional work experience. Applicants should submit a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience. In addition, the immediate supervisor should submit a letter confirming work status.
9. Professional certification or licensure.

### Unconditional Admission

For unconditional admission, the applicant's composite total from the GMAT-based index must be 1080 or higher, and items 1 through 6 above should strongly indicate potential for successful academic performance as a graduate information systems student. If an applicant falls below the GMAT Verbal percentile of 30 and/or the GMAT Quantitative percentile of 30, corroborating evidence of proficiency in that skill will be reviewed.

There is no equivalent index created using GRE scores. For students submitting the GRE, for unconditional admission, GRE Verbal and Quantitative percentiles should be above the 40th percentile, and items 1 through 9 above should strongly indicate potential for success in the MSIS program.

Students who are unconditionally admitted must have a minimum undergraduate grade point average of 3.00 as calculated by the Graduate School (or 3.00 at the graduate level), and enroll for a minimum of six semester credit hours to be eligible for available fellowship and/or scholarship support. A standardized test score will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### Probationary Admission

For an applicant with an index score below 1080, probationary admission may be available when at least three items of 1 through 6 above strongly indicate potential for successful academic performance as a graduate information systems student. Items 7 through 10 will also be used to identify positive indicators for admission. When GMAT verbal or quantitative percentiles are below the 30th percentile, probationary admission may be available. For applicants submitting the GRE as part of the application for admission, when GRE verbal or quantitative percentiles are below the 40th percentile, probationary admission may be available. Students admitted on probationary status for low verbal or quantitative percentiles, must satisfactorily complete one or more English and/or math courses in the first two semesters as specified by the Graduate Advisor. Students who are admitted on probation must meet the conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study and any required undergraduate course.

### Provisional, Deferred and Denied Admission

Provisional admission may be granted if an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements. A student will not be permitted to enroll in the Graduate School with a provisional status for more than one semester. Provisional admission does not guarantee subsequent admission on an unconditional basis.

For an applicant who does not meet minimum acceptable scores on the GMAT, and other evidence indicates lack of potential for academic success as a graduate information systems

student, admission will be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

## Degree Requirements

The Department of Information Systems and Operations Management provides two Master's tracks: a Thesis Option for those intending to later pursue a Ph.D. in Information Systems, and a Non-Thesis track, a traditional flexible option. The thesis track program provides preparation for entry into a Ph.D. program. The second option is the flexible non-thesis program enabling a degree candidate greater flexibility in designing their program.

The thesis option consists of a minimum of 30 semester hours; BSTAT 5325, INSY 5309, INSY 5335, INSY 5341, INSY 5357, three elective courses approved by the Graduate Advisor, and six hours of thesis work taken in the last semester. The thesis student must be enrolled in six hours of thesis. Once the student is enrolled in the thesis course, continuous enrollment is expected. The student must be enrolled in six hours of thesis during the semester in which the thesis is defended and the final Master's Examination is unconditionally passed. The degree candidate must defend the thesis in a final oral examination open to all members of the Faculty.

The non-thesis option consists of 33 semester hours; BSTAT 5325, INSY 5309, INSY 5335, INSY 5341, INSY 5357, INSY 5375, and five elective courses approved by the Graduate Advisor.

The non-thesis option electives can be focused in two tracks: systems development and business analytics. The systems development track concentrates on the analysis, design, and implementation of business systems and their management issues. Courses in this track cover such topics as object-oriented technology, data base design, advanced systems design techniques, and project management. The business analytics track concentrates on technologies and skills needed to analyze big data to gain insights which help improve business decisions and planning. Courses in this track would cover such topics as data mining, data warehousing, statistical computing, and selective statistics topics. The student must meet with the MSIS Graduate Advisor to determine the appropriate coursework for the selected track.

When there is equivalent work/course experience, the student must meet with the MSIS Graduate Advisor to select alternate coursework. An approved 3-credit hour graduate internship (INSY 5399) may also be taken as an elective.

## Waivers and Transfer Credit

There are three types of required courses: deficiency, core and advanced. Programs of work will normally vary in length from 36 to 45 hours (plus deficiency courses), depending upon waivers granted. The first three waivers of core courses will be used to expand the number of electives in the advanced program rather than shorten the overall program. Additional waivers of core courses may reduce the program to a minimum of 36 hours. Applicants may have both deficiency and core courses waived without the requirement for a substitute course if they have completed, during the last 10 years, a similar course at a recognized college or university and received a "B" or better grade.\* Extensions to this 10 year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience. Additionally, a maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by program advisor. Transfer of graduate classes from other universities will be considered on a case by case basis.

\* Note: The University of Texas at Austin offers Business Foundations Programs (BFP) for non-business majors that provide solid foundations in basic business concepts. BFP courses and courses from equivalent programs for non-business majors at other colleges/universities may not be used for course waiver credit.

## BSTAT Courses



## **BSTAT5301 – INTRODUCTION TO STATISTICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to statistics, designed to prepare graduate students to become competent consumers of statistical information that they will encounter in their professional and personal lives. Students should be able to perform basic statistical analyses and to think critically when interpreting statistical results. Topics include probability, random variables, sampling distributions, confidence intervals, tests of hypotheses, and simple regression. May not be counted as an MBA foundation course or elective. Prerequisite: MATH 1315.

## **BSTAT5303 – QUANTITATIVE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Study of the methods of quantitative analysis used in business administration. Topics include matrix algebra, systems of linear equations, differential and integral calculus, linear programming, classical optimization, and a survey of management science models. Prerequisite: MATH 1315.

## **BSTAT5315 – STATISTICAL METHODS FOR HEALTH CARE ADMINISTRATORS**

**3** Lecture Hours · **0** Lab Hours

Statistical methods designed to prepare graduate students to become competent producers and consumers of data analyses and to use statistical thinking to approach managerial decision making. Students should be familiar with the effectiveness and limitations of various applicable techniques and should be able to recognize when additional statistical expertise is required. Topics include an introduction to evidenced based medicine, probability with an emphasis on the poor predictive value of imperfect diagnostics for rare conditions, standardizing and trending data, graphic and numeric descriptions of data, concepts of inference such as margins of error and significance of results, concepts of quality control including time series analysis and forecasting, and health care applications of discrete random variables with Poisson or binomial probability mass functions. It is recommended that students who have no recent courses in statistics take BSTAT 5301 prior to BSTAT 5315.

## **BSTAT5325 – ADVANCED STATISTICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Advanced statistical methods designed to prepare graduate students to become competent producers and consumers of statistical methods and to use statistical thinking to approach managerial decision making in their careers. They should be able to recognize the strengths and weaknesses of applicable techniques and when additional statistical expertise is required. Topics include multiple regression, correlation, experimental design and analysis, time series and other statistical methods with emphasis on their application to managerial decision making. It is strongly recommended that students who have no recent courses in statistics take BSTAT 5301 prior to BSTAT 5325.

## **BSTAT5330 – NONPARAMETRIC STATISTICS**

**3** Lecture Hours · **0** Lab Hours

A survey of statistical tools which may be used when the normal assumptions of parametric statistics cannot be made; including procedures for categorical data, methods involving ranks, bootstrapping, and Kolmogorov-Smirnov type techniques. Cross-listed with BSAD 6330. Prerequisite: BSTAT 5325 or equivalent.

## **BSTAT5331 – DATA VISUALIZATION**

**3** Lecture Hours · **0** Lab Hours

Investigation of recent advances in data graphics to support business analytics. Concepts include graphical depiction, analysis of data structure and graphical software. Visualization topics would include exploratory analysis of univariate and multivariate data using graphical software, e.g., Lowess Smoothing and Sunflower Plots. Cross-listed with INSY 5331. Prerequisite: BSTAT 5325 or equivalent.

## **BSTAT5339 – PRINCIPLES OF BUSINESS DATA MINING**

**3** Lecture Hours · **0** Lab Hours

This course provides an overview of the life cycle stages of a data mining project, contexts in which data mining is applied, a survey of data mining techniques, and measuring the effect of the resulting action.

Additional topics include communicating with management representatives and IT professionals, ethical issues in data mining, and relationships with reference disciplines such as statistics, artificial intelligence, machine learning and database. Learning is facilitated by a combination of lectures, group projects, and homework assignments. This course is cross-listed with INSY 5339. Prerequisite: BSTAT 5325. May be taken concurrently.

### **BSTAT5360 – COMPUTATIONAL TECHNIQUES FOR BUSINESS ANALYTICS**

**3** Lecture Hours · **0** Lab Hours

Computer software is the primary analytical tool for business analytics and modern research methods. Data analysts, statisticians, and researchers need technologies and skills using the computer as a tool for structuring and cleaning data sets, creating validation samples, conducting analyses, fitting models, simulating stochastic systems, model validation, and model presentation. Emphasis is placed on the use of data analytic software. Cross-listed with INSY 5360. Prerequisite: BSTAT 5325 or equivalent.

### **BSTAT5392 – SELECTED TOPICS IN BUSINESS STATISTICS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in business statistics. May be repeated when topics vary.

### **BSTAT5399 – GRADUATE BUSINESS ANALYTICS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in business statistics. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

## **INSY Courses**

### **INSY5182 – INDEPENDENT STUDIES IN INFORMATION SYSTEMS**

**1** Lecture Hour · **0** Lab Hours

Extensive analysis of an information systems topic. Prerequisite: permission of instructor.

### **INSY5199 – GRADUATE INFORMATION SYSTEMS INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

Practical training in information systems. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **INSY5299 – GRADUATE INFORMATION SYSTEMS INTERNSHIP**

**2** Lecture Hours · **0** Lab Hours

Practical training in information systems. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **INSY5309 – OBJECT-ORIENTED BUSINESS PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours

Topics include fundamental programming structures, objects and classes, inheritance, and other basic concepts related to OO programming.

### **INSY5331 – DATA VISUALIZATION**

**3** Lecture Hours · **0** Lab Hours

Investigation of recent advances in data graphics to support business analytics. Concepts include graphical depiction, analysis of data structure and graphical software. Visualization topics would include exploratory analysis of univariate and multivariate data using graphical software, e.g., Lowess Smoothing and Sunflower Plots. Cross-listed with INSY 5331. Prerequisite: BSTAT 5325 or equivalent.



## **INSY5333 – INFORMATION TECHNOLOGIES FOR STRATEGIC MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

A nontechnical, managerially-oriented introduction to information technology applications that enhance an organization's competitive effectiveness. Topics include: Executive Information Systems (EIS), Enterprise Resource Planning (ERP), Supply Chain Management (SCM) systems, data warehousing and mining, business intelligence, knowledge management, e-business, and approaches to integrate these technologies with corporate strategic planning and management. Graded A, B, C, D, F, W.

## **INSY5335 – APPLIED DATABASE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Concepts, tools, and technologies associated with the design, implementation and management of large databases are presented. Topics include data models (with emphasis on E/R model and relational model), database design and implementation, database query language, transaction management, and distributed databases. Recent advances in data management are also discussed. Use of a commercial DBMS is required. Prerequisite: INSY 5309 or approval of MSIS Graduate Advisor

## **INSY5337 – DATA WAREHOUSING AND BUSINESS INTELLIGENCE**

**3** Lecture Hours · **0** Lab Hours

This course covers concepts, tools, and technologies associated with the design and implementation of data warehousing (DW) and business intelligence (BI) applications. Topics covered include data warehouse architecture and infrastructure, dimensional modeling, Extraction Transformation and Loading (ETL), On Line Analytical Processing (OLAP), data quality, and planning and implementation of a DW & BI application. The course objectives are met through a combination of lectures, class projects and homework assignments. Hands-on experience in developing and deploying a DW & BI application is provided. Prerequisite: INSY 5335

## **INSY5339 – PRINCIPLES OF BUSINESS DATA MINING**

**3** Lecture Hours · **0** Lab Hours

This course provides an overview of the life cycle stages of a data mining project, contexts in which data mining is applied, a survey of data mining techniques, and measuring the effect of the resulting action. Additional topics include communicating with management representatives and IT professionals, ethical issues in data mining, and relationships with reference disciplines such as statistics, artificial intelligence, machine learning and database. Learning is facilitated by a combination of lectures, group projects, and homework assignments. This course is cross-listed with BSTAT 5339. Prerequisite: BSTAT 5325. May be taken concurrently.

## **INSY5340 – MANAGING THE DIGITAL ENTERPRISE**

**3** Lecture Hours · **0** Lab Hours

This course examines a wide variety of topics important to understanding and managing the Digital Enterprise. Topics may include: Internet infrastructure and related technologies; e-business models; security; ethical, legal, global, and social concerns; and managerial and marketing issues.

## **INSY5341 – ANALYSIS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

Analysis and design phase of systems development life cycle. Topics include systems survey, functional specification, interface specification, data design, program design, system testing, and implementation. Prerequisite: INSY 5335

## **INSY5342 – ADVANCED SYSTEMS DESIGN**

**3** Lecture Hours · **0** Lab Hours

This course provides an understanding of state-of-the-art software development methodologies, including those that are fast emerging. The focus will be on how these new methods differ from traditional practices and what research opportunities they afford to IS researchers. There will be a strong emphasis on technical as well as on socio-technical aspects of software development in the context of these new methodologies. Prerequisite: INSY 5341.

## **INSY5343 – DATA COMMUNICATIONS AND NETWORKING**

**3** Lecture Hours · **0** Lab Hours

Technological and managerial issues related to design, operation and maintenance of computer networks. Topics include communication architectures and protocols, LANs and WANs, ATM and frame relay, cellular and satellite communication, the World Wide Web, the Internet, and electronic commerce.

## **INSY5347 – PRINCIPLES OF INFORMATION SECURITY**

**3** Lecture Hours · **0** Lab Hours

Starting with an introduction to Information Security concepts, this course will address security terminology, history, management, technology and practice based on the Security Domains specified by ISC2. The course will address strategies and tools, managerial, technological, legal, ethical and operational issues related to Information Security. Topics in developing Security Blueprint, Incidence Response, Business Continuity planning and Disaster Recovery will be addressed. Prerequisite: INSY 5343

## **INSY5350 – HEALTH CARE INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Addresses issues in the development, integration, and management of health care information systems. Specifically, topics in financial information systems, patient care systems, and health care delivery applications will be discussed. Both case studies and real life applications will be studied. Prerequisite: Cohort HCAD Major

## **INSY5352 – TOPICS IN OBJECT TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Coverage of current topics in Object Technology to include the study of object-oriented agents, components, object request Brokers, distributed objects and related implementations of object-oriented software. Also includes the study of design patterns in object-oriented software design. Prerequisite: INSY 5309.

## **INSY5354 – ENTERPRISE APPLICATION DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course will address the architectures, methodologies, tools and techniques used in the development and deployment of enterprise-level information systems applications. The topics covered will include client/server applications, intranet/internet applications, distributed applications, enterprise-level objects and server-side components. Prerequisite: INSY 5341 and 5352.

## **INSY5357 – ENTERPRISE RESOURCE PLANNING**

**3** Lecture Hours · **0** Lab Hours

An introduction to enterprise resource planning (ERP), a business management paradigm that integrates all facets of the business, including planning, manufacturing, sales, finance and marketing. Course will cover both the methodology and practice of ERP using commercial software packages.

## **INSY5360 – COMPUTATIONAL TECHNIQUES FOR BUSINESS ANALYTICS**

**3** Lecture Hours · **0** Lab Hours

Computer software is the primary analytical tool for business analytics and modern research methods. Data analysts, statisticians, and researchers need technologies and skills using the computer as a tool for structuring and cleaning data sets, creating validation samples, conducting analyses, fitting models, simulating stochastic systems, model validation, and model presentation. Emphasis is placed on the use of data analytic software. Cross-listed with INSY 5360. Prerequisite: BSTAT 5325 or equivalent.

## **INSY5363 – INTELLIGENT INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Topics include expert systems, inductive learning, genetic algorithms, neural networks, simulated annealing, etc. Prerequisite: INSY 5309.

### **INSY5365 – COMPUTER FORENSICS AND INVESTIGATIONS**

**3** Lecture Hours · **0** Lab Hours

This course provides an introduction to acquiring and analyzing digital evidence for forensic purposes. The course will cover tools and techniques of forensics investigation of computer crimes. Topics covered include analysis file structures, data recovery, email and network analysis, digital investigations, expert witness testimony, and preserving evidence for law enforcement and legal proceedings. Prerequisite: INSY 5347.

### **INSY5370 – ENTERPRISE APPLICATION ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

Enterprise applications typically display, manipulate and store large amounts of complex data and support business processes with that data. Enterprise applications have their own challenges and solutions that is different from desktop systems and embedded systems. This course addresses enterprise application architecture issues such as layering applications, structuring domain logic, specifying user interface, linking memory and relational database, handling session state and the principles of distribution. The course will also address solutions organized as software patterns and their use in application design. Prerequisite: INSY 5341.

### **INSY5373 – INFORMATION SYSTEMS PROJECT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the concepts and practices of project management and their importance to improving the success of information technology projects. Distinct aspects or characteristics of IT projects which cause these projects to behave differently in the corporate world than do other, non-technical, projects will be discussed.

### **INSY5375 – MANAGEMENT OF INFORMATION TECHNOLOGIES**

**3** Lecture Hours · **0** Lab Hours

This course covers topics on the management of information technologies (IT) from the view point of senior managers. Subjects discussed include the strategic role of IT to gain competitive advantage, Internet-based business models, building a lean and agile organization through IT, managing IT security and reliability, evolving models of IT service delivery, such as cloud computing and open source, management of outsourcing, IT governance, and ethical issues in the digital era. In addition to classroom lectures, the course relies heavily on case analysis and discussion to provide a real world perspective of issues related to IT management.

### **INSY5379 – ORGANIZATIONAL RESEARCH PROJECT**

**3** Lecture Hours · **0** Lab Hours

Students conduct a research project at a local organization, focusing on applications of information systems concepts studied in their coursework. Prerequisite: Cohort INSY Major.

### **INSY5382 – INDEPENDENT STUDIES IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of an information systems topic.

### **INSY5392 – SELECTED TOPICS IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in information systems. May be repeated when topics vary.

### **INSY5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F,R,P

### **INSY5399 – GRADUATE INFORMATION SYSTEMS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in information systems. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **INSY5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P.

### **INSY6182 – INDEPENDENT STUDY IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Doctoral level study of information systems topics. Prerequisite: Doctoral standing.

### **INSY6301 – SEMINAR IN RESEARCH FOUNDATIONS**

**3** Lecture Hours · **0** Lab Hours

Integrative analysis of research in information systems, including research philosophies and methodologies, contemporary research topics, dissertation research and future directions for information systems research. Prerequisite: Doctoral standing.

### **INSY6306 – SEMINAR IN INFORMATION TECHNOLOGIES**

**3** Lecture Hours · **0** Lab Hours

Focuses on contemporary technology issues in IS development and deployment. Prerequisite: Doctoral standing and INSY 6301.

### **INSY6307 – SEMINAR IN IS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on managerial and organizational issues in IS. Prerequisite: Doctoral standing and INSY 6301

### **INSY6392 – SELECTED TOPICS IN INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Advanced doctoral level topics in Information Systems. May be repeated when topics vary. Prerequisite: Doctoral standing.

## **MASI Courses**

### **MASI5182 – INDEPENDENT STUDIES IN MANAGEMENT SCIENCES**

**1** Lecture Hour · **0** Lab Hours

Extensive analysis of a management sciences topic.

### **MASI5199 – GRADUATE MANAGEMENT SCIENCES INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

Practical training in management science. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **MASI5282 – INDEPENDENT STUDIES IN MANAGEMENT SCIENCES**

**2** Lecture Hours · **0** Lab Hours

Extensive analysis of a management sciences topic.

### **MASI5299 – GRADUATE MANAGEMENT SCIENCES INTERNSHIP**

**2** Lecture Hours · **0** Lab Hours

Practical training in management science. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **MASI5332 – ADVANCED DATA COLLECTION**

**3** Lecture Hours · **0** Lab Hours

Surveys, audits, samples and experimental designs contrasted and compared as a basis for statistical inference. Emphasis is on the integration of techniques common to differing areas of business research. Prerequisite: STAT 5325.

### **MASI5382 – INDEPENDENT STUDIES IN MANAGEMENT SCIENCES**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a management sciences topic.

### **MASI5399 – GRADUATE MANAGEMENT SCIENCES INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in management science. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **MASI6309 – MULTIVARIATE STATISTICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Focuses on methods of analyzing mean and covariance structures. Topics include commonly applied multivariate methods such as multiple analysis of variance, repeated measures, discriminant analysis, profile analysis, canonical correlations, and factor analytic methods. The use of matrix algebra and available computer packages will be stressed. Prerequisite: Doctoral standing and BSTAT 5325.

## **OPMA Courses**

### **OPMA5199 – GRADUATE OPERATIONS MANAGEMENT INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

Practical training in operations management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **OPMA5299 – GRADUATE OPERATIONS MANAGEMENT INTERNSHIP**

**2** Lecture Hours · **0** Lab Hours

Practical training in operations management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **OPMA5321 – INTRODUCTION TO MANAGEMENT SCIENCES**

**3** Lecture Hours · **0** Lab Hours

Introduction to optimization and quantitative analysis of business problems. Topics include applications of linear and integer programming, network analysis, simulation, game theory, queuing theory, and other operations research tools.

### **OPMA5361 – OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Introduction to concepts and problem-solving techniques important in production management and operations management. Topics include demand forecasting, capacity management, resource allocation, inventory management, supply chain management, quality control, and project management.

### **OPMA5363 – OPERATIONS PLANNING AND CONTROL**

**3** Lecture Hours · **0** Lab Hours

Course covers operations planning and control systems in manufacturing and service organizations. Topics include inventory control, material requirements planning, Just-In-Time and lean manufacturing, production scheduling, capacity planning, and operations planning and control software. Previous introductory course in operations management suggested.

### **OPMA5364 – PROJECT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course covers concepts and issues important in effectively managing projects. Topics include project selection, project planning, negotiation, budgeting, scheduling, resource allocation, project control, project auditing, and project termination.

### **OPMA5367 – QUALITY MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course focuses on quality of products and services needed by society. Topics include consideration of quality cost and improvements, designing for quality, process controls, inspections, testing, acceptance sampling, management controls, and quality information systems. Previous introductory course in statistics suggested.

### **OPMA5368 – GLOBAL SUPPLY CHAIN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course covers concepts and issues important in managing supply chains. A strategic view is taken of the way companies coordinate their operations with suppliers and customers in a global marketplace. The strategic use of information systems to better manage supply chains is also covered. Previous introductory course in operations management suggested.

### **OPMA5369 – LOGISTICS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course covers physical supply, in-plant movement and storage, and physical distribution of materials, which comprise logistics systems in industry. Topics include facility location, transportation, warehousing, inventory control, distribution networks, and logistics information systems. Previous introductory course in operations management suggested.

### **OPMA5377 – HEALTH CARE QUALITY ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Covers an integrated case study approach to organizational performance management resulting in the delivery of ever-improving value to patients, improved health care quality and organizational sustainability, improvement of overall organizational effectiveness as a health care provider, and organizational learning.

### **OPMA5379 – ORGANIZATIONAL RESEARCH PROJECT**

**3** Lecture Hours · **0** Lab Hours

Students conduct a research project at a local organization, focusing on applications of business concepts studied in their coursework. Prerequisite: Cohort MBA Major

### **OPMA5382 – INDEPENDENT STUDIES IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of an Operations Management topic.

### **OPMA5389 – INDEPENDENT STUDIES IN MILITARY ACQUISITION**

**3** Lecture Hours · **0** Lab Hours

This course is reserved for military officers in the Training with Industry or I-Grade programs at UT

Arlington. Studies consist of an acquisition practicum with training at an assigned agency and a required seminar at UT Arlington.

### **OPMA5392 – SELECTED TOPICS IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in operations management. May be repeated when topics vary.

### **OPMA5399 – GRADUATE OPERATIONS MANAGEMENT INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in operations management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities.

### **OPMA5689 – INDEPENDENT STUDIES IN MILITARY ACQUISITION**

**6** Lecture Hours · **0** Lab Hours

This course is reserved for military officers in the Training with Industry or I-GRAD programs at UT Arlington. Studies consist of an acquisition practicum with training at an assigned agency and a required seminar at UT Arlington.

### **OPMA5989 – INDEPENDENT STUDIES IN MILITARY ACQUISITION**

**9** Lecture Hours · **0** Lab Hours

This course is reserved for military officers in the Training with Industry or I-Grade programs at UT Arlington. Studies consist of an acquisition practicum with training at an assigned agency and a required seminar at UT Arlington.

### **OPMA6370 – SEMINAR IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Doctoral seminar that is a comprehensive and integrative study of operations management that focuses on theoretical frameworks, applications of models, and methods of analysis. Prerequisite: Doctoral standing.

### **OPMA6371 – INTEGRATED OPERATIONS STRATEGY AND RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Linkages between the manufacturing and strategy development functions. Research issues within production/operations management. Current techniques/designs for achieving effective research. Prerequisite: Doctoral standing and previous introductory course in operations management suggested.

### **OPMA6380 – RESEARCH IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of a faculty member. May be repeated for credit. Prerequisite: Doctoral standing.

### **OPMA6392 – SPECIAL TOPICS IN OPERATIONS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Advanced doctoral level topics in Operations Management. May be repeated when topics vary. Prerequisite: Doctoral standing.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Management

College of Business

### Chair Abdul Rasheed

Web [management.uta.edu](http://management.uta.edu)  
Phone 817.272.3166  
Fax 817.272.3122

---

### Degrees / Certificates

#### Master's Degrees

Human Resource Management, M.S.

#### Doctoral Degrees

Management (Business Administration), Ph.D.

---

### Graduate Faculty

#### Professor

[Myrtle Bell](#)  
[Deepak Datta](#)  
[David Gray](#)  
[Jim Quick](#)  
[Abdul Rasheed](#)

#### Associate Professor

[George Benson](#)  
[Wendy Casper](#)  
[Susanna Khavul](#)  
[James Lavelle](#)  
[Margaret Mcfadyen](#)  
[Jeffrey Mcgee](#)  
[Gary McMahan](#)  
[Liliana Nordtvedt](#)

#### Assistant Professor

[Marcus Butts](#)  
[Feirong Yuan](#)

#### Assistant Clinical Professor

[Janice Baldwin](#)  
[Beverly George](#)  
[Jeanne Michalski](#)  
[Terrance Wilensky](#)

#### Lecturer

[Dennis Veit](#)

---



## Graduate Advisors

### Wendy Casper

*Management (Business Administration), Ph.D.*

### Gregory Frazier

*Management (Business Administration), Ph.D.*

### Chandra Subramaniam

*Human Resource Management, M.S.*

*Human Resource Management, Non-Degree Seeking*

### Dennis Veit

*Human Resource Management, M.S.*

---

## Department Information

### Courses

# Department Information

### Objective

### Accreditation

### Admission and Degree Requirements

- [Proposed Admissions Changes Effective August 2014 >>](#)
- [Unconditional Admission](#)
- [Probationary Admission](#)
- [Provisional, Deferred and Denied Admission](#)
- [Curriculum](#)
- [Waivers and Transfer Credit](#)

## Objective

The basic purpose of the Master of Science degree in Human Resource Management is to provide students with both a general knowledge of business and a specialized knowledge in human resource management. Students are exposed to the theory, research and practical applications of numerous content areas, including human resource strategy and policy, human resource planning, human resource information systems, career planning and development, employee relations law, organization change and development, employee selection, compensation, training and development and employee diversity in organizations. The program is designed to prepare students for human resource management careers in business and industrial firms, as well as government and nonprofit organizations.

## Accreditation

The Master of Science in Human Resource Management is accredited by the AACSB-International (Association to Advance Collegiate Schools of Business-International).

The Master of Science in Human Resource Management curriculum is also accredited by SHRM National Association to meet their guidelines.

All classes of our Master of Science in Human Resources Management curriculum have been certified to meet the guidelines for the HRCI re-accreditation.

## Admission and Degree Requirements

Admission to the MSHR program is based upon the completion of the general admission requirements of the Graduate School. For admission into the MSHR program an acceptable score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and acceptable academic undergraduate performance are required. The GMAT is strongly preferred.

Students for whom English is not their native language must also take the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework.

A standardized test score (GMAT or GRE) will not be used as the sole criterion or the primary criterion for determining an applicant's admission to the MSHR program. Specifically, multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to deny admission is not based on any single criterion.

Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.25 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. This will be integrated into a formula or index that multiplies the GPA by 200 and adds the resulting value to the GMAT Score. An index score greater than 1080 is typical of a successful candidate.
2. GMAT sub scores (verbal and quantitative) are also considered in the admission decision. A GMAT total score greater than 480 is typical of a successful candidate.
3. A GRE quantitative percentile greater than 40% and Verbal percentile greater than 40% is typical of a successful applicant.
4. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
5. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
6. Educational objectives and quality of written expression of the 200 word application essay.
7. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

### Unconditional Admission

For unconditional admission, the applicant's composite total from the index must be 1080 or higher

and items 1 through 5 above should strongly indicate potential for successful academic performance as a graduate HR student.

Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.00 as calculated by the Graduate School (or 3.00 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as the sole criterion or the primary criterion for determining fellowship and/or scholarship eligibility.

### Probationary Admission

For an applicant with an index score below 1080, probationary admission may be available when at least three items of 1 through 5 above strongly indicate potential for successful academic performance as a graduate HR student. Items 6 through 10 will also be used to identify positive indicators for admission. Students who are admitted on probation will have one or more conditions specified, such as no grade less than "B" for the first 12 hours of graduate study.

### Provisional, Deferred and Denied Admission

A provisional decision to admit may be granted when the applicant meets criteria for unconditional or probationary status but one or more applicant credentials are incomplete. A deferred decision may be made when an applicant's file is not sufficiently complete to make an admit or deny decision.

For an applicant with an index score less than 1040 and other evidence indicating lack of potential for academic success as a graduate HR student, admission will likely be denied. However, all applicant data will be carefully reviewed before an admission denial is made.

### Curriculum

The program is designed primarily for the student who has a bachelor's degree in business administration. A minimum of 30 semester hours is required if the student chooses to write a thesis. If the student chooses not to write a thesis, a minimum of 36 semester hours is required. Students who do not have bachelor's degrees in business administration may have to take additional coursework (up to 18 semester hours) to acquire sufficient general business knowledge for effective performance as a human resource executive.

Coursework for the program includes six hours of required work in research and statistical methods, 15 hours of required work in human resources and policy, and thesis or elective hours in related management courses to complete the 30- or 36-hour requirements. For the students who choose to write a thesis, the six hours of thesis will involve working closely with one or more members of the graduate faculty from the Department of Management on a research project in a specialized area of interest in human resource management.

The curriculum is as follows:

1. Core Courses (18 semester hours)
  - ACCT 5301 Financial Accounting
  - ECON 5311 Economic Analysis II
  - OPMA 5361 Operations Management
  - MARK 5311 Marketing
  - FINA 5311 Business Finance
  - MANA 5312 Management
2. Advanced Courses (27 semester hours, thesis and non-thesis)
  - a. Required human resource and policy courses (18 semester hours)
    - MANA 5340 Strategic Human Resource Management
    - MANA 5341 Staffing and Performance Management
    - MANA 5322 Compensation and Benefits

- MANA 5323 Training and Development
  - MANA 5327 Human Resource Law
  - MANA 5336 Strategic Management
  - MANA 5334 Organizational Consulting
- b. Required research courses (six semester hours)
- BSTAT 5325 (Advanced Statistics)
- c. MANA 5329 Methods of Organizational Research (Prerequisite BSTAT 5325)
3. Thesis (MANA 5698) and three elective semester hours. "The thesis student must be enrolled in six hours of thesis. Once the student is enrolled in the thesis course, continuous enrollment is expected. The student must be enrolled in six hours of thesis during the semester in which the thesis is defended and the final Master's Examination is unconditionally passes. The degree candidate must defend the thesis in a final oral examination open to all members of the Faculty."
4. Non-thesis option requires 9 elective semester hours.

### Waivers and Transfer Credit

There are three types of required courses: deficiency, core and advanced. Programs of work will normally vary in length from 36 to 45 hours (plus deficiency courses), depending upon waivers granted. The first three waivers of core courses will be used to expand the number of electives in the advanced program rather than shorten the overall program. Additional waivers of core courses may reduce the program to a minimum of 36 hours. Applicants may have both deficiency and core courses waived without the requirement for a substitute course if they have completed, during the last 10 years, a similar course at a recognized college or university and received a "B" or better grade.\* Extensions to this 10 year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience. Additionally, a maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by program advisor. Transfer of graduate classes from other universities will be considered on a case by case basis.

\* Note: The University of Texas at Austin offer Business Foundations Programs (BFP) for non-business majors that provide solid foundations in basic business concepts. BFP courses and courses from equivalent programs for non-business majors at other colleges/universities may not be used for course waiver credit.

## MANA Courses

### MANA5182 – INDEPENDENT STUDIES IN MANAGEMENT

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a management topic.

### MANA5199 – GRADUATE MANAGEMENT INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### MANA5299 – GRADUATE MANAGEMENT INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in management. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

## **MANA5312 – MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Basic exploration of organizations in their environments. The elementary tools of management, which include: organizational objectives, social responsibility and ethics, policies, plans, and decision making; the design of organizations and jobs; the production and technology aspects of organization; the elements of leadership, behavior, and communication; and the elements of control and performance evaluation.

## **MANA5320 – ORGANIZATIONAL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Systematic study of behavioral problems in the complex organization. Analyzes the interaction of environmental and internal factors and their effects upon organizational behavior. The course is placed within the context of the organization process. Prerequisite: MANA 5312.

## **MANA5321 – COMPLEX ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

Provides the foundation for an in-depth knowledge of several important theories of management and organization. Attention to study of organizations, organizational effectiveness, comparative analysis of organizations, and the organization and its environment. Relates empirical findings and theoretical hypotheses with applied management concepts. Prerequisite: MANA 5312.

## **MANA5322 – COMPENSATION & REWARD SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Management of compensation systems in business and other organizations; concepts models and practices related to wage and salary levels and structures; perceived equitable pay; individual performance appraisal, rewards and satisfaction; benefits and employee services.

## **MANA5323 – TRAINING AND DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Examines the components of training systems. Topics include assessing training needs and establishing objectives, developing training programs, selecting appropriate training techniques, and evaluating training outcomes.

## **MANA5324 – TEAM AND GROUP BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

A study in team and group dynamics, critical processes and practices. Topics include team composition and development, problem solving strategies and performance, conflict management, leadership process and work team strategies.

## **MANA5325 – LABOR & EMPLOYEE RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Examines union-management relations and considers the structure and functioning of the economic and social forces of importance at the policy level within both the firm and the union. Also considers non-union employee relationships.

## **MANA5326 – ORGANIZATION DEVELOPMENT AND CHANGE**

**3** Lecture Hours · **0** Lab Hours

This graduate seminar is taught as a field research practicum in which students use the organizational diagnosis model of Harry Levinson to develop information about the functioning of an organizational system. Recommendations for interventions and change at the individual, group, and organizational levels are considered in interaction with business leaders. Client organizations have included Chaparral Steel Company, AT&T, American Airlines, SiemensDematic, and EDS. Qualitative interview and quantitative questionnaire data collection and feedback methods are emphasized along with archival and observational data.

### **MANA5327 – HUMAN RESOURCE LAW**

**3** Lecture Hours · **0** Lab Hours

Coverage of statutory and case law in the employment setting. Emphasis placed on employment discrimination, compensation and benefits law; government agencies which administer and enforce employment laws are also reviewed. Prerequisite: MANA 5340.

### **MANA5329 – METHODS OF ORGANIZATIONAL RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research design, data collection, and hypothesis testing applied to human resource management. The class focuses on basic statistics, quantitative decision-making, and data presentation skills using Human Resource metrics and analytics examples.

### **MANA5330 – NEGOTIATIONS & CONFLICT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on developing students negotiating skills in a variety of contexts. Throughout the course students will diagnose negotiation situations, strategize and plan for negotiations, and learn how to engage in more effective negotiations. The course also focuses on developing interpersonal conflict resolution skills and strategies.

### **MANA5331 – MANAGEMENT OF MULTINATIONAL ENTERPRISES**

**3** Lecture Hours · **0** Lab Hours

Focuses on the international dimensions of strategy and organization and provides a framework for formulating strategies in an increasingly complex global economy. The course seeks to provide students with an understanding of the cultural, political, competitive, technological, legal, and demographic environments in which multinational firms operate. It then examines the nature of global competition by exploring the characteristics of global industries and strategies that have been successful in an international context. Also covered are issues related to organizational design and strategic control in the management of multinational enterprises.

### **MANA5332 – MANAGING DIVERSITY IN ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

Examines implications of employee diversity in organizations, including human resource and organizational behavior issues related to aspects of diversity. Includes study of the changing demographics of workers, effects of diversity on organizational performance, and ways of effectively managing in organizations having applicants, employees, and customers from diverse backgrounds. Research on diversity issues is examined, as are process of stereotyping and myths and misperceptions about diversity issues. Legislation related to diversity is also reviewed.

### **MANA5333 – INNOVATION AND SUSTAINABILITY MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Innovation and Sustainability motivates students to understand how entrepreneurs in start-up and corporate environments identify, assess, and commercialize innovations with sustainability in mind. Using case studies, experiential exercises, and field research, students will consider how innovations across a broad range of emerging technologies will meet the market, financial, and environmental demands of a diverse set of current and future stakeholders. Students will have an opportunity to put learning into practice by analyzing their own innovations or an innovations arising from either university research, an existing company, or a current employer.

### **MANA5334 – ORGANIZATION CONSULTING & RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Explores internal and external consulting to business organizations. Emphasis on the management of the change process through the stages of data gathering, diagnosis, analysis, and recommendation.

### **MANA5336 – STRATEGIC MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours



Strategic management uses a general management perspective in addressing issues related to the formulation and implementation of corporate and business level strategy. The course involves developing the ability to identify issues, evaluate strategic options and understand the organizational process by which strategies get formed and executed. It builds on the knowledge gained in functional area courses and uses case studies and projects to improve students' analytical and decision-making skills. Prerequisite: Must be taken in last semester or with permission of the Graduate Advisor.

### **MANA5337 – ETHICS AND THE BUSINESS ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Uses a strategic perspective to examine ethics, government and the world economy, and how they may affect relationships between business organizations and other institutions of our society. Particular attention is paid to issues such as leadership, technology, and internationalization concordant with the breadth requirements of the UTA MBA plus public policy concerns involving the natural environment, gender and minority issues. Course activities will include class discussion and analysis of societal dilemmas, contemporary cases and current news stories.

### **MANA5338 – CAREERS & MANAGING IN A CHANGING ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Presents practical and theoretical perspectives on careers and managing in a changing work environment. Includes self assessment, career plan development, informational interviews, readings and exercises designed to lead to a better understanding of managing self and others.

### **MANA5339 – ENTREPRENEURSHIP**

**3** Lecture Hours · **0** Lab Hours

New venture opportunity assessment, formation, and development in startup and corporate environments. Students will understand the role of entrepreneurship in the economy and the attributes of entrepreneurial behavior. Students will learn how to assess the market and financial feasibility of a new venture as well as understand how to use equity and debt financing, how to select between starting up, franchising, or buying a business, how to lead the growing company, and how to address family business dilemmas. The cornerstone of the course will be a feasibility assessment project that leads to a business plan for a new venture of the student's choice. For the project, students can explore either an original new venture idea, an already existing venture concept (for example, a franchise), or a new business opportunity in need of assessment for an existing firm or their current employer.

### **MANA5340 – STRATEGIC HUMAN RESOURCE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Emphasizes strategic perspective of modern human resource management theory and practice. Topics include human resource planning, staffing, training and development, compensation, performance appraisal, and labor and employee relations.

### **MANA5341 – STAFFING AND PERFORMANCE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course covers employee recruitment, selection and performance appraisal. Topics include: recruitment strategies and methods, methods of employee selection, performance planning, development and validation of appraisal instruments, implementation and conduct of performance appraisal, and performance feedback and counseling.

### **MANA5342 – PREVENTIVE STRESS MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examines the organizational demands that cause stress. Identifies the psychophysiology of the stress response and the individual/ organizational costs of distress. Emphasis is placed on the principles and methods of preventive stress management, such as social support, exercise, and the relaxation response.

### **MANA5350 – EFFECTIVE LEADERSHIP**

**3** Lecture Hours · **0** Lab Hours

This graduate course uses self-assessment testing with feedback, case studies, selected readings, and guest lectures from successful leaders and top executive coaches to create a learning laboratory for mature and motivated graduate students of leadership.

### **MANA5382 – INDEPENDENT STUDIES IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA5392 – SELECTED TOPICS IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in management. May be repeated when topics vary.

### **MANA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Thesis 5398 graded R (Research) or F only. Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **MANA5399 – INTERNSHIP 5399 GRADUATE LEVEL**

**16** Lecture Hours · **0** Lab Hours

Internship for Master's level course

### **MANA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **MANA6182 – INDEPENDENT STUDIES IN MANAGEMENT**

**1** Lecture Hour · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA6282 – INDEPENDENT STUDIES IN MANAGEMENT**

**2** Lecture Hours · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA6318 – SEMINAR IN ORGANIZATIONAL THEORY**

**3** Lecture Hours · **0** Lab Hours

Advanced study in the theory and research of organizations.

### **MANA6328 – SEMINAR IN BUSINESS POLICY**

**3** Lecture Hours · **0** Lab Hours

Advanced study in the theory and research bases of business policy and strategic management.

### **MANA6329 – ADVANCED RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

In-depth coverage of selected topics in the design of research and analysis of data; topics include philosophy of science, theory of measurement, complex experimental and quasi-experimental designs.

### **MANA6338 – SEMINAR IN ORGANIZATIONAL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Advanced study in the theory and research of organizational behavior.



### **MANA6348 – SEMINAR IN PERSONNEL/HUMAN RESOURCE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Advanced study in employee selection, performance appraisal, compensation, training and development, human resource policy and strategy, and other areas of human resource management.

### **MANA6382 – INDEPENDENT STUDIES IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a management topic.

### **MANA6390 – ADVANCED TOPICS IN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in management. May be repeated when topics vary.

### **MANA6392 – RESEARCH IN ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Independent research under supervision of a faculty member.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[School of Architecture](#)[College of Business](#)[Accounting](#)[Business Administration](#)[Economics](#)[Finance and Real Estate](#)[Health Care  
Administration](#)[Information Systems &  
Operations Management](#)[Management](#)[Marketing](#)[College of Education and  
Health Professions](#)[College of Engineering](#)[College of Liberal Arts](#)[College of Nursing](#)[College of Science](#)[School of Social Work](#)[School of Urban and Public  
Affairs](#)[Admissions Requirements &  
Procedures](#)[General Information &  
Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Marketing

College of Business

### Chair J Fernando Jaramillo

Web [www2.uta.edu/marketing/](http://www2.uta.edu/marketing/)

Phone 817.272.2876

Fax 817.272.2854

234 Business Building

---

### Degrees / Certificates

#### Master's Degrees

Marketing Research, M.S.

#### Doctoral Degrees

Marketing (Business Administration), Ph.D.

---

### Graduate Faculty

Assistant Professor and Graduate Advisor of Marketing Department Ph.D. Program

[Ritesh Saini](#)

#### Professor

[Lawrence Chonko](#)[Xueming Luo](#)

#### Associate Professor

[Elten Briggs](#)[Traci Freling](#)[Douglas Grisaffe](#)

#### Assistant Professor

[Narayanan Janakiraman](#)[J Fernando Jaramillo](#)[Adwait Khare](#)[Zhiyong Yang](#)

#### Clinical Professor

[Robert Rogers](#)

#### Associate Clinical Professor

[Gary Lacefield](#)

#### Assistant Clinical Professor

[Michael Richarme](#)


---

### Graduate Advisors

**Gregory Frazier**

*Marketing (Business Administration), Ph.D.*

**Robert Rogers**

*Marketing Research, M.S.*

**Ritesh Saini**

*Marketing (Business Administration), Ph.D.  
Marketing Research, M.S.*

**Chandra Subramaniam**

*Marketing Research, M.S.  
Marketing Research, Non-Degree Seeking*

---

**Department Information**

**Courses**

## Department Information

**Objective: M.S. Program**

**Accreditation**

**Admissions**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional and Deferred Admission**
- **Admission Denial**

**Assistantships**

- **Scholarships**

**Degree Requirements**

**Marketing Research Internship**

### **Objective: M.S. Program**

The objective of the Master of Science in Marketing Research is to prepare students for successful careers in marketing research, marketing planning, product or brand management, and related fields. The program is project oriented; many of the required advanced courses conduct client projects as a part of the course requirements. The projects are team-based; class members work in teams to accomplish project objectives.

### **Accreditation**

The Master of Science in Marketing Research degree is accredited by the AACSB International - The Association to Advance Collegiate Schools of Business.

### **Admissions**

Admission to the Master of Science in Marketing Research program is based on completion of the

general admission requirements of the Graduate School. For MSMR program admission a score on the Graduate Management Admission Test (GMAT) or the Graduate Record Examination (GRE) and the official record of undergraduate (and post-graduate, if applicable) are required. The GMAT is preferred.

Applicants for whom English is not their native language must also present official results of the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). The MSMR program's objective is to have all applicants qualified to be either Graduate Teaching Assistants (GTA) or Graduate Research Assistants. (GRA).

A standardized test score (GMAT or GRE) will not be used as the sole criterion for determining an applicant's admission to the MSMR program. The admission decision is made based on the totality of information listed below:

1. An undergraduate grade point average (GPA) greater than 3.25 on a 4-point scale (as calculated by the Graduate School) is indicative of an applicant who is likely to be successful in the program. The GPA calculated by the Graduate School is based on the last 60 hours of the undergraduate program. A graduate GPA is used when it is 3.0 or above and based on at least 24 hours.
2. Either the GMAT or the GRE will be considered for the admission decision. On both the GMAT and GRE, both quantitative and verbal component percentiles above the 50th percentile are indicative of an applicant who can be successful in the program. A GMAT combined score of 580 or above is indicative of an applicant who is likely to be successful in the program. There is no commonly accepted conversion from GRE to GMAT for combined scores. The algorithm provided by the Educational Testing Service (ETS) is used to estimate the likely GMAT combined score for student who have submitted GRE score to be considered for admission. The midpoint of the confidence interval is assumed to be an estimator for a likely GMAT combined score. The results from 1 and 2 above are combined to create an index. The index is created by multiplying the GPA by 200 and adding the GMAT combined score (or the estimate based on GRE scores.) An index score of 1200 or greater is indicative of an applicant who is likely to be successful in the program.
3. International applicants must submit official scores of measures designed to demonstrate English language proficiency. English language proficiency is indicative of an applicant who is likely to be successful in the program. The MSMR program's objective is to have all students qualified to be able to perform as Graduate Teaching Assistants and/or Graduate Research Assistants. The MSMR program requires a minimum of 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with section scores of at least 22 for the writing section, 23 for the speaking section, 20 for the reading section, and 16 for the listening section. International students who do not meet program requirements may be asked to provide additional information to demonstrate English language proficiency.
4. Grades in specific undergraduate business and non-business courses (math, accounting, economics, statistics, for example).
5. Educational objectives and passion for marketing research, as well as quality of written expression of the 200 word application essay or the personal statement.
6. Letters of recommendation from three persons familiar with the applicant's work ethic as evidenced in academic background or work experience.
7. A personal interview in person or by telephone.
8. General and specific program accreditation status of degree-granting institution.
9. Professional work experience.
10. Professional certification or licensure.

### Unconditional Admission

To be considered for Unconditional Admission, the applicant's index score should be 1200 or

higher, and items 3 through 10 above should be indicative of strong potential to be successful in this program.

### **Probationary Admission**

For an applicant with an index score below 1200, probationary admission may be available when items of 1 through 10 above strongly indicate potential for successful academic performance as an MSMR student. When GMAT Verbal or Quantitative percentiles are below the 50th percentile, probationary admission may be available. For applicants submitting the GRE as part of the application for admission, when GRE verbal or Quantitative percentiles are below the 50th percentile, probationary admission may be available. Students admitted on probationary status for low verbal or quantitative percentiles must satisfactorily complete one or more English and/or math courses in the first two semesters as specified by the Graduate Advisor. Students who are admitted on probation must meet the conditions specified, such as no grade less than 'B' for the first 12 hours of graduate study and any required undergraduate course.

### **Provisional Admission**

A provisional decision to admit an applicant may be granted when the applicant meets the criteria for unconditional or probationary admission but one or more applicant credentials are missing from the applicant file.

### **Admission Denial**

If an applicant's record does not provide sufficient evidence of likelihood of being successful in the program following careful review of all available information, admission will be denied.

## **Assistantships**

Graduate Teaching Assistantships may be offered to students who have been accepted in the program. The Marketing Department will request and evaluate the applications and make the selection of applicants for the positions based on departmental needs and university requirements. Graduate Research Assistantships may be offered on an as needed basis. When GRA positions are available, the Marketing faculty involved in the project will solicit applications from students who have been admitted to the program. The applicants will be evaluated by the appropriate faculty.

## **Scholarships**

Students who have been accepted into the program are encouraged to pursue scholarship opportunities within the College of Business and the university.

Scholarship funds from the member firms of the MSMR Advisory Board and the MSMR Alumni Association may be available to support students who have been accepted into the program and are enrolled full-time and in good standing with the University.

Students are advised that scholarship opportunities are available. A faculty committee and, if appropriate, MSMR alumni select recipients based on a rank ordering of eligible students.

## **Degree Requirements**

The program is designed primarily for students who have earned a Bachelor of Business Administration (BBA or equivalent). For those students, the program consists of the 36 semester hours of Advanced Courses.

Students with degrees other than BBA are required to take up to 21 Hours of Foundation courses required by the College of Business. Foundation courses may be waived if equivalent coursework has been completed with a grade of B or better within the previous 5 years.

Students are encouraged to complete deficiency requirements prior to admission or at the beginning of their studies. College courses in business math (including probability and set theory, linear equations, matrix algebra, compound interest, annuities, and differential and integral calculus), business statistics, and computers (including general topics, spreadsheets and word processing and electronic communications) may be taken prior to entry into the program.

1. Foundation Courses (21 semester hours)
  - ACCT 5301 Accounting Analysis I (Financial Accounting)
  - ACCT 5302 Accounting Analysis II (Managerial Accounting)
  - ECON 5311 Economic Analysis II (Micro & Macro)
  - MARK 5311 Marketing
  - MANA 5312 Management
  - FINA 5311 Business Financial Management
  - BSTAT 5325 Advanced Statistical Methods
2. Advanced Courses (36 semester hours)
  - MARK 5320 Buyer Behavior
  - MARK 5327 Research for Marketing Decisions
  - MARK 5328 Product Management
  - MARK 5337 Marketing Information Management
  - MARK 5338 Qualitative Research
  - MARK 5340 Marketing Strategy
  - MARK 5342 Advanced Topics in Marketing Research
  - MARK 5343 Advanced Research Analysis I
  - MARK 5344 Advanced Research Analysis II
  - MARK 5382 Independent Studies in Marketing
  - MARK 5396 Marketing Research Internship I
  - MARK 5397 Marketing Research Internship II

## Marketing Research Internship

The Marketing Research Internships (MARK 5396 and MARK 5397) represent an integrative component of the MSMR program. MSMR students are responsible for developing the relationships necessary to secure an internship offer. The internship opportunities developed by the students require approval by the Marketing Department.

The internships each consist of a minimum of 240 hours (12 weeks half-time); the typical internship parallels the start and end of a semester (spring, summer and fall) but internship opportunities may require a more lengthy commitment on the part of the student.

The MSMR intern must be working on marketing research projects; they must have some managerial input into the project; and they must be supervised by someone with a background in marketing research.

## BCOM Courses

### BCOM5375 – ADVANCED BUSINESS COMMUNICATION THEORY & PRACTICE

3 Lecture Hours · 0 Lab Hours

Examines theory of effective oral and written communication. Discusses techniques for improved research, report writing and presentation. Also stresses presentation media and computer graphics for reports and presentations.

## MARK Courses

### MARK5142 – ADVANCED TOPICS IN MARKETING RESEARCH

1 Lecture Hour · 0 Lab Hours

Presentation and analysis of cutting edge topics in marketing research.

### MARK5182 – INDEPENDENT STUDIES IN MARKETING

1 Lecture Hour · 0 Lab Hours

Extensive analysis of a marketing topic.

### MARK5199 – GRADUATE MARKETING INTERNSHIP

1 Lecture Hour · 0 Lab Hours

Practical training in marketing. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### MARK5282 – INDEPENDENT STUDIES IN MARKETING

2 Lecture Hours · 0 Lab Hours

Extensive analysis of a marketing topic.

### MARK5299 – GRADUATE MARKETING INTERNSHIP

2 Lecture Hours · 0 Lab Hours

Practical training in marketing. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### MARK5311 – MARKETING

3 Lecture Hours · 0 Lab Hours

Survey of activities involved in marketing. Emphasis is on developing a managerial point of view in planning and evaluating marketing decisions of the firm. Analyzes decisions with respect to products, price, channel, and promotional variables and considers questions relating to cost efficiency, demand, social responsibility and regulations.

### MARK5320 – BUYER BEHAVIOR

3 Lecture Hours · 0 Lab Hours

Marketing begins and ends with the customer. This course introduces students to the study of consumer behavior. It is taught from the perspective of a marketing consultant who requires knowledge of consumer behavior in order to create, implement, and evaluate effective marketing strategies for clients. The course examines many concepts and theories from the behavioral sciences and analyzes their value in crafting marketing strategies. The course combines lecture and discussion of research based literature, both of which are aimed at providing an in-depth understanding of customer marketplace behavior with a focus on application to consumption and marketing decision making situations. Prerequisite: MARK 5311.

### MARK5326 – INTEGRATED MARKETING COMMUNICATION

3 Lecture Hours · 0 Lab Hours

A managerial approach to coordinating all promotional activities, including direct marketing, advertising, sales promotion, personal selling, public relations, publicity and packaging to produce a unified market-focused message. Message development, placement and timing are examined within the context of the role each type of promotion plays in marketing strategy development. Additional topics examined include media definition and analysis, the communication process, legal and ethical considerations, and budgeting. Prerequisite: MARK 5311.



### **MARK5327 – RESEARCH FOR MARKETING DECISIONS**

**3** Lecture Hours · **0** Lab Hours

Overview of information needs of the marketing decision-maker. Emphasis on methods and techniques that may be employed for the collection and analysis of primary data. Major topics include design of research projects, generating primary data, questionnaire design, samplings for survey research, experimental design, controlling data collection, and data analysis. Prerequisites: MARK 5311 and STAT 5301.

### **MARK5328 – PRODUCT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Management of the firm's product or service offerings. Topics include new product development, new product screening, evaluation of existing products, product line and mix analysis, product abandonment decisions, the brand manager's role, the new product planning department, and others. Emphasis on the development of meaningful criteria for decision-making in the product area and on the development of information systems to suggest, screen, and monitor products. Prerequisite: MARK 5327.

### **MARK5329 – SALES AND SALES MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examines the skills required for successful personal selling and sales management in today's world, with emphasis on industrial markets. Discusses the links between business trends and the resulting need for new approaches to the sales management challenges of planning, implementing, and evaluating a sales program. Special topics include the strategic importance of the sales force, customer/supplier partnering, multi-function collaboration, technology's role in altering traditional customer-access channels, the organization of the sales function for profitability vs. revenue, and the development of effective major account strategies.

### **MARK5330 – SERVICES MARKETING MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examines conceptual frameworks and management practices particularly relevant to organizations in service industries, including health care, education, financial services, retailing, non-profit organizations, and others in which the core product is a service instead of a good. The course examines many concepts and theories from the service marketing industry and analyzes their value in crafting marketing strategies. Emphasis is on problem solving unique to these types of organizations. Prerequisite: MARK 5311.

### **MARK5331 – INTERNATIONAL MARKETING**

**3** Lecture Hours · **0** Lab Hours

Management of marketing in international business. Includes marketing research, pricing, promotion, and distribution in the international environment. Examines marketing problems arising from various degrees of foreign involvement (exports, licensing, foreign subsidiaries). Prerequisite: MARK 5311.

### **MARK5332 – BUSINESS-TO-BUSINESS MARKETING**

**3** Lecture Hours · **0** Lab Hours

Marketing strategies for businesses targeting other businesses. Included are frameworks for analysis of marketing opportunities. Business-to-business e-commerce is examined. Prerequisite: MARK 5311.

### **MARK5334 – STRATEGIC INTERNET MARKETING**

**3** Lecture Hours · **0** Lab Hours

Through theoretical investigation, brainstorming, and case analysis, students develop the skills and strategies that are necessary for effective marketing via electronic media. With particular emphasis on Internet-based media, topics include developing an online corporate identity, online market research, interactive and database Web site strategies, creating and maintaining Web site content, proactive marketing tactics, analysis of Web site statistics, measuring online marketing results, and development of a strategic Internet marketing plan. Prerequisite: MARK 5311.



### **MARK5335 – RETAILING, FRANCHISING, AND ENTREPRENEURSHIP**

**3** Lecture Hours · **0** Lab Hours

Course offers exposure to elements of retail management, franchising, and entrepreneurship, including planning, promotion, pricing, and merchandising. Prerequisite: MARK 5311.

### **MARK5337 – MARKETING INFORMATION MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Course focuses on various types of marketing data bases and computer-based research systems designed for the collection, storage, usage, and reporting of disaggregated data. Topics include single-source data, geodemographics, and micro-merchandising systems. Case studies and data analysis projects are utilized. Prerequisite: MARK 5327.

### **MARK5338 – QUALITATIVE RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Examines the nature of qualitative research and its growing value to the marketing research community. The role of focus group interviewing, types of focus groups and their conduct are extensively explored. Other topics include depth interviewing, projective techniques, observational research, the delphi method, environmental forecasting and futuring. Prerequisite: MARK 5327.

### **MARK5340 – MARKETING STRATEGY**

**3** Lecture Hours · **0** Lab Hours

A case course designed to give the student an opportunity to utilize the managerial and analytical tools that he or she has acquired. Uses case studies which require a realistic diagnosis of company problems, development of alternative courses of action, and the formulation of specific recommendations. Prerequisite: MARK 5311 and six hours of advanced marketing coursework.

### **MARK5342 – ADVANCED TOPICS IN MARKETING RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Presentation and analysis of cutting edge topics in marketing research. Prerequisite: consent of Program Director.

### **MARK5343 – ADVANCED RESEARCH ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Focuses on problems of data analysis in marketing research. Introduces the concept of multivariate data and emphasizes application of core statistical techniques including factor analysis, multiple regression, discriminant analysis and logistic regression. Also covered are cluster analysis and ratings based conjoint analysis. Application of statistical software is stressed including interpretation of statistical output. Prerequisite MARK 5327 or equivalent.

### **MARK5344 – ADVANCED RESEARCH ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

Advanced Research Analysis II - Continues from 5343 on problems of data analysis in marketing research. Advanced multivariate applications include MANOVA (Multivariate analysis of variance), multidimensional scaling and correspondence analysis, choice based conjoint studies, confirmatory factor analysis, and structural equations modeling. Application of appropriate statistical software is emphasized including the interpretation of statistical outputs. Prerequisite: MARK 5343.

### **MARK5382 – INDEPENDENT STUDIES IN MARKETING**

**3** Lecture Hours · **0** Lab Hours

Extensive analysis of a marketing topic.

### **MARK5396 – MARKETING RESEARCH INTERNSHIP I**

**3** Lecture Hours · **0** Lab Hours

The internship involves part-time or full-time training and work experience in a company approved by the MSMR program advisor.

### **MARK5397 – MARKETING RESEARCH INTERNSHIP II**

**3** Lecture Hours · **0** Lab Hours

This is a continuation of Internship I and involves part-time or full-time work experience in a company approved by the MSMR program advisor. The student will be assigned primary responsibility for at least one marketing research project during Internship I or II. At the completion of the course, the student will present a research paper to the MSMR faculty.

### **MARK5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **MARK5399 – GRADUATE MARKETING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training in marketing. Analysis of theory applied to real life situations. Course counts as an elective and has a pass/fail grade. No credit will be given for previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed.

### **MARK5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: STAT 5325 and approval of Graduate Advisor.

### **MARK6302 – CONSUMER BEHAVIOR I**

**3** Lecture Hours · **0** Lab Hours

Study of current thought and research underlying individual and group marketplace behavior. Theories from the behavioral sciences are applied to consumer behavior from descriptive, predictive and normative perspectives. Topics include consumer knowledge, attitude theory, persuasion, affect, and social influence. The course draws from the literature in marketing, psychology, and behavioral economics. The course will enable students to conceptualize, operationalize, and develop research ideas.

### **MARK6303 – CONSUMER BEHAVIOR II**

**3** Lecture Hours · **0** Lab Hours

This course complements the Consumer Behavior I doctoral seminar. Building on a portion of that seminar, the course focuses on a few topics (e.g. automaticity in consumer behavior, consumer choice processes) that have the following characteristics: 1) the topics are the subjects of emerging research in consumer behavior, 2) students can gain an in-depth understanding of the theoretical underpinnings of these topics, and 3) the materials are such that students can develop innovative research projects on marketing and consumer behavior related to the topics covered in the class. Prerequisite MARK 6302.

### **MARK6305 – MARKETING MODELS I**

**3** Lecture Hours · **0** Lab Hours

Study of basic models of market and consumer behavior with particular attention to the use of classical statistical methods such as ordinary and generalized least squares, factor analysis, discriminant analysis and correspondence analysis, cluster analysis, and canonical correlation. Applications include perceptual mapping, multiattribute modeling, conjoint analysis, and product planning models. Prerequisite: STAT 5325.

### **MARK6310 – MARKETING STRATEGY AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Examination of the latest research and thought in marketing and business strategy. Topics include marketing programming; product, price, promotion, and distribution decisions, marketing audits, and the

design, implementation and evaluation of marketing strategies and tactics. An objective of the course is the development of innovative research ideas on marketing strategy related to the topics covered in the class.

## **MARK6311 – MARKETING STRATEGY AND MANAGEMENT II**

**3** Lecture Hours · **0** Lab Hours

In increasingly global and competitive markets, sustainable competitive advantage takes on increasing importance. Further, in many industries, product differentiation no longer provides a decisive edge over competition. This course complements the Marketing Strategy and Management I doctoral seminar. Building on a portion of that seminar, the course focuses on a few topics ( e.g. transformation of a product-centric organization to a customer centric organization, organizational change, organizational agility, and technology-enabled relationship management) that will allow students to examine areas of emerging research in marketing strategy, gain an in-depth understanding of the theoretical underpinnings of the selected topics, and develop innovative research projects on marketing strategy related to the topics covered in the class. Prerequisite MARK 6310.

## **MARK6327 – ADVANCED MARKETING RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Major topics include design of research projects, generating primary data, questionnaire design, sampling for survey research, experimental design, controlling data collection, and data analysis. Coverage of scientific techniques for collecting and analyzing data; includes research paradigms, measurement, and design. Emphasis on theory and application of survey research including classical test theory, item response theory, sampling, questionnaire construction, validity and reliability assessment and data reduction.

## **MARK6331 – ADVANCED GLOBAL MARKETING THEORY**

**3** Lecture Hours · **0** Lab Hours

Examines the antecedents and consequences of global marketing. Includes the politics of global marketing, emerging global strategies, the latest concepts of market entry and development, and global marketing performance and evaluation.

## **MARK6390 – TOPICS IN MARKETING**

**3** Lecture Hours · **0** Lab Hours

Advanced doctoral level work in special topics in marketing. May be repeated when topics vary.

## **MARK6392 – INDEPENDENT STUDY IN MARKETING**

**3** Lecture Hours · **0** Lab Hours

Doctoral level analysis of marketing topic.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[Curriculum and  
Instruction](#)

[Educational Leadership  
and Policy Studies](#)

[Kinesiology](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Educational Curriculum & Instruction

College of Education and Health Professions

### Chair John Smith

Web [www.uta.edu/coed/curricandinstruct/](http://www.uta.edu/coed/curricandinstruct/)

Email [education@uta.edu](mailto:education@uta.edu)

Phone 817.272.2591

Fax 817.272.2530

[5th Floor Hammond Hall](#)

### Degrees / Certificates

#### Master's Degrees

Accelerated Online Ed. Curriculum & Instruction, M.Ed. Mathematics

Accelerated Online Ed. Curriculum & Instruction, M.Ed. Trip. Lit.

Accelerated Online Ed. Curriculum & Instruction, M.Ed. Science

Ed. Curriculum & Instruction, M.Ed.

Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics

Ed. Curriculum & Instruction, M.Ed. Non Thesis Science

Ed. Curriculum & Instruction, M.Ed. Writing Focus

Mind, Brain and Education, M.Ed. Non Thesis

Reading Specialist, M.Ed.

Teaching - Early Childhood, M.Ed.T.

Teaching - Middle Level, M.Ed.T.

Teaching - Secondary Level, M.Ed.T.

#### Certificates

Education in Teaching, All Level Certificate

Education in Teaching, Early Childhood Certificate

Education in Teaching, Mid-Level Certificate

Education in Teaching, Secondary Level Certificate

English Secondary Language Certificate

Gifted & Talented Certificate

Master Reading Teacher Certificate

Master Tech. Teaching Certificate

Reading Specialist Certificate

School Counselor Certificate

Teaching - Teacher Certification Only

### Graduate Faculty

[Joyce Myers](#)

#### Professor

[Ann Cavallo](#)

[Mary Crow](#)

[Christopher Kribs](#)

[Andrew Milson](#)

[Luis Rosado](#)

**Marc Schwartz**  
**John Smith**

**Associate Professor**

**Joohi Lee**  
**Jon Leffingwell**  
**Jodi Tommerdahl**  
**Jiyoon Yoon**

**Assistant Professor**

**Carla Amaro-Jimenez**  
**Amber Brown**  
**Holly Hungerford-Kresser**  
**Evguenia Malaia**  
**Leisa Martin**  
**Mohan Pant**  
**Kathryn Pole**  
**Peggy Semingson**

---

**Graduate Advisors**

**Mary Crow**

*School Counselor Certificate*

**Caitlin Guerrero**

*Ed. Curriculum & Instruction, Special Student*  
*Ed. Curriculum & Instruction, M.Ed.*  
*Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics*  
*Ed. Curriculum & Instruction, M.Ed. Non Thesis Science*  
*Ed. Curriculum & Instruction, M.Ed. Writing Focus*

**Teaira Little**

*Ed. Curriculum & Instruction, M.Ed.*

**Joyce Myers**

*Ed. Curriculum & Instruction, M.Ed.*

**Marc Schwartz**

*Mind, Brain and Education, M.Ed. Non Thesis*

---

**Department Information**

**Courses**

## Department Information

**Programs**

**Objective**

**Admissions Requirements**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Denied Admission**
- **Eligibility for Scholarships/Fellowships**
- **Distance Learning Options**

## Degree Requirements

- **M.Ed.T. in Curriculum and Instruction with Teacher Certification**
- **M.Ed. in Curriculum and Instruction**
- **M.Ed. in Curriculum and Instruction - Science Education**
- **M.Ed. in Curriculum and Instruction - Mathematics Education**
- **M.Ed. in Curriculum and Instruction - Literacy Studies** (available online)
- **M.Ed. in Curriculum and Instruction - Mind, Brain, and Education**
- **M.Ed. in Curriculum and Instruction - Social Studies Education**

## Coursework and Completion Requirements

### Professional-Level Certifications

- **Initial Teacher Certification**
- **Master Reading Teacher Certificate** (available online)
- **Reading Specialist Certification** (available online)
- **English as a Second Language (ESL)** (available online)
- **Bilingual Education (BIL)**
- **School Counseling Certification**

## Programs

The Department of Curriculum and Instruction currently offers the Master of Education in Teaching (M.Ed.T.) and the Master of Education in Curriculum and Instruction (M.Ed.) degrees. Certification and supplemental certifications are offered for: Reading Specialist, Master Reading Teacher, Bilingual Education (BEEP), and English as a Second Language (ESL). Distance learning opportunities in some degree programs are available for those interested (see section on Distance Learning Options). Students pursuing a master's degree are required, with the assistance of the Graduate Advisor and graduate faculty, to complete a tentative program of work. This program of work is filed in the College of Education and Health Professions Graduate Advising Office and may be modified as needed. All master's degrees in Curriculum and Instruction comprise a minimum of 36 semester hours and are non-thesis. Candidates for master's degrees are required to submit a final program of work and complete a designated capstone course for their program: EDUC 5397 for M.Ed.T. and M.Ed. in Curriculum and Instruction, and LIST 5317 for M.Ed. with emphasis in Literacy Studies.

## Objective

The Master of Education in Teaching (M.Ed.T.) degree is designed for those wishing to pursue initial teacher certification at the graduate level. The Master of Education in Curriculum and Instruction (M.Ed.) degree provides opportunities for those interested in developing effective teaching, research, and leadership skills that are congruent with an ever-expanding theoretical knowledge base in the field. The M.Ed. enables teachers to specialize in advanced coursework in their teaching fields and other professional certification areas designed to meet a variety of professional goals. Both degrees help prepare graduates to reflect upon their own teaching as well as on the state of education as a whole and to better understand the linkage between the theory and practice of teaching. Each student's program of study is planned individually and provides academic and/or pedagogical specialization within the context of the general field of education. Graduate faculty in the College of Education and Health Professions as well as those in departments and in the colleges throughout the University work closely with students in formulating study plans that meet the students' objectives and individual goals for professional growth. Each program of instruction includes both professional and academic components.

## Admissions Requirements

### Unconditional Admission

- Current GRE score of 400 on quantitative section (140 on the revised GRE) and 500 on verbal section (153 on the revised GRE)
- 3.0 GPA during the last 60 hours of undergraduate coursework and a 3.0 average on all graduate work
- 3 letters of reference on file

### Probationary Admission

Applicants who score less than 400 (140 on the revised GRE) on the quantitative and 500 (153 on the revised GRE) on the verbal sections of the GRE will be considered for probationary admission on the basis of the following:

- 3.0 GPA during the last 60 hours of undergraduate coursework AND a 3.0 average on all graduate work
- Professionally relevant experience
- Writing sample evaluated by the COEHP Graduate Studies Committee. When available, the GRE writing sample will be required for probationary admission.

**Terms of Probation upon Acceptance:** All students admitted under probation status will be required to earn a 3.0 GPA during the first 12 hours of graduate coursework in the program, with no grade lower than a "B."

### Provisional Admission

An applicant unable to supply all required documentation prior to the admissions deadline, but who otherwise appear to meet admission requirements, may be granted provisional admission.

### Deferred Admission

An applicant's admission may be deferred when a file is not complete or when denying admission is not appropriate.

### Denied Admission

An applicant may be denied admission if the conditions for unconditional and probationary admission have not been met.

In addition, if a student has been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons, that student may be denied admission or readmission to an educator preparation program in the College of Education and Health Professions.

### Eligibility for Scholarships/Fellowships

To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Office of Graduate Studies, and must be enrolled in a minimum of six (6) hours of coursework in both long semesters to retain their fellowships.

### Distance Learning Options

Many graduate courses in the Department of Curriculum and Instruction are offered on campus as well as over the Internet. For the distance learning option, students enroll in the Internet course and complete all course requirements from the convenience of their home or school computers. Basic computer competence is necessary (logging on to a Web site, sending and receiving e-mail). Students need a reliable Internet connection and a consistent e-mail address. All assignments are submitted electronically according to an established calendar of deadlines. Students proceed at



their own pace in a highly interactive learning environment.

## Degree Requirements

### Master of Education in Teaching (M.Ed.T.) with Teacher Certification

The Master of Education in Teaching (M.Ed.T.), a 36-hour non-thesis degree, is a unique and specialized degree that enables a student holding a baccalaureate degree to pursue initial teacher certification and use those hours toward requirements of a master's degree. In addition to being accepted by the Office of Graduate Studies, students must also be admitted into the Teacher Certification program (consult a teacher certification advisor for current admittance requirements). For teacher certification, students must meet state requirements for their teaching field(s) or specialization and complete the graduate-level coursework for early childhood - grade 6, middle level, secondary, or early childhood - grade 6 bilingual certification. They must also fulfill the student teaching requirements and pass the appropriate certification exams (consult a teacher certification advisor for current certification information). Up to 18 hours of teacher certification coursework may be applied to the total 36 hours required for completion of the M.Ed.T.; however, students must complete teacher certification courses and pass the appropriate certification exams before proceeding to courses that apply to the master's degree. Students may earn teacher certification without completing a master's degree. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on all programs.

### Master of Education (M.Ed.)

The Master of Education degree in Curriculum and Instruction (M.Ed.), a 36-hour non-thesis degree, is a broad-based degree that enables students to pursue academic and professional goals within an individualized program. Following are possible master's degree options.

#### M.Ed. in Curriculum and Instruction

This particular master's degree option is ideal for students desiring a pedagogical foundation in education in addition to an 18-hour concentration of a particular resource area or academic discipline. A common core of 18 hours of graduate education coursework in instructional strategies, curriculum design, and research are required. Students also choose from a variety of certifications available through the College of Education and Health Professions to incorporate into their master's degree plan (see the section on Professional Certifications), or they may choose to incorporate up to 18 hours of graduate coursework from disciplines outside of Education. For example, a degree plan for a student who desires TESOL (Teaching English to Speakers of Other Languages) certification would include the required 18 hours of coursework in Education along with the 18 hours of Linguistics coursework from the Program in Linguistics. The Graduate Advisor works with students in creating a degree plan that meets their professional needs and goals. (Note: The Graduate Advisor and graduate faculty must approve all coursework included in a degree plan.) This degree does not require a student to hold a teacher certificate. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

#### M.Ed. in Curriculum and Instruction - Science Education M.Ed. in Curriculum and Instruction - Mathematics Education

The *M.Ed. in Curriculum and Instruction - Science Education* and *M.Ed. in Curriculum and Instruction - Mathematics Education* offer opportunity for students to pursue graduate studies by taking a *Core component* of 6 courses (18 credit hours) in the College of Education and Health Professions focusing on topics such as inquiry-based, problem-based teaching and learning, diversity, and classroom research, and a *Concentration area component* of 6 courses (18 credit hours). The six *concentration area* courses may be taken either in the Department of Curriculum and Instruction for a science and mathematics content-curriculum integration emphasis and/or in the College of Science for deeper subject matter emphasis in the various science and mathematics disciplines. These programs offer flexibility in course selection, yet are focused on science and mathematics teaching and learning in K-16 educational settings.



A version of this program is offered online through the Academic Partnership program. For more information on the online program please visit: <http://stateu.com/uta/education.asp> For information on the on-campus science and mathematics education program and scholarships available for teachers, contact: Dr. Ann Cavallo, [cavallo@uta.edu](mailto:cavallo@uta.edu) or Jamie Williams, [robin@uta.edu](mailto:robin@uta.edu), 817.272.2832.

### M.Ed. in Curriculum and Instruction - Literacy Studies (available online)

One of the most popular M.Ed. degree plans is the M.Ed. in Curriculum and Instruction with an emphasis in Literacy Studies. In this program, students specialize in advanced coursework designed to meet a variety of professional goals related to literacy. For instance, students may pursue professional certificates including the following.

- **Reading Specialist** is a national certification available in all states. Literacy coaches generally work with teachers to help them with best literacy practices. Reading Specialist is an advanced certificate that certified teachers may add to their existing credential upon completion of two year's teaching experience and a master's degree with at least 27 hours of graduate coursework in literacy. Once recommended for the Reading Specialist from UTA, students may also apply for the Master Reading Teacher (MRT) certificate without the additional MRT exam.
- **English as a Second Language** is a national certification available in all states. All states have some type of English as a Second Language (ESL) designation. In Texas, ESL is an add-on certificate that individuals with an initial teaching certificate can add to their existing credential with only 12 hours of graduate coursework.
- **Master Reading Teacher (MRT)** is a Texas only certificate. MRTs work in designated schools to tutor struggling readers and may also serve as literacy coaches. The MRT sequence includes 12 graduate hours of coursework. Students who hold the Reading Specialist Certificate can apply for the MRT without additional coursework or the MRT test.

Out of state students seeking certification should go to <http://www.uta.edu/coehp/distaneducation/> for information about their certification options.

In addition to these professional certificates, students may choose focused coursework in areas including:

- Writing
- Working with culturally and linguistically diverse students

This program requires 36 credit hours (12 courses). Once students have successfully completed all coursework, they will graduate with a Master of Education in Curriculum and Instruction. In addition, on passing the appropriate TExES tests, students will also have the Reading Specialist Certification, Master Reading Teacher Certification, and/or supplemental certification in English as a Second Language. The ESL is a 12-hour, four-course program that can be taken as part of this master's degree plan or separately in preparation for the TExES test for supplemental certification in ESL.

### M.Ed. in Curriculum and Instruction - Mind, Brain, and Education

The master's degree in Mind, Brain, and Education integrates research in the cognitive and neurosciences and education along with classroom practice to develop more effective teaching methods as well as a deeper understanding of how to support life-long learning. The degree is a 36-hour non-thesis, non-certification program, focused on integrating cognitive science, neuroscience, and education to challenge and information pedagogy. The program focuses on the potential and limits of cognitive neuroscience in education and the central role educators can play in shaping research agendas in MBE. Graduates are expected to serve their community and the field by completing a project defined and carried out during the two-year program.

Applicants must be accepted by the Office of Graduate Studies and admitted to the program as part of a cohort. Students complete nine required courses (27 credits), choose two additional courses from a list of approved electives (6 credits) and choose one unrestricted additional course

that meets the needs of the candidate (3 credits). For additional information, contact Dr. Marc Schwartz at [schwarma@uta.edu](mailto:schwarma@uta.edu).

## M.Ed. in Curriculum and Instruction - Social Studies Education

Graduate students interested in broadening their knowledge and instructional skills in Social Studies take a *Core component* of 6 courses (18 credit hours) in the College of Education and Health Professions focusing on topics such as inquiry-based, problem-based teaching and learning, diversity, and classroom research, and a Social Studies *Concentration area component* of 6 courses (18 credit hours). Social Studies concentration area courses may be selected from an approved list of related courses in various departments across campus, with advisor approval. For further information contact Dr. Andy Milson at [milson@uta.edu](mailto:milson@uta.edu).

## Coursework and Completion Requirements

- Coursework that is more than six years old at the time of graduation or teacher/administrator certification program completion cannot be used toward meeting the requirements for a master's degree or graduate-level certification.
- Master's degree and graduate level certification programs must be completed within six years (time in military service excluded) from initial registration in the Graduate School.
- Appropriate state exams and application to the State Board for Educator Certification for a standard certificate must be made within six months of completion of student teaching. If a candidate allows the six month period to go by without passing all state exams and applying for certification, additional coursework and/or state exams will be required.
- Each candidate in the College of Education and Health Professions of UT Arlington will be evaluated on **professional dispositions** by faculty and staff. These dispositions have been identified as essential for a highly-qualified professional. Instructors and program directors will work with candidates rated as "unacceptable" in one or more stated criteria. The candidate will have an opportunity to develop a plan to remediate any digressions.

## Professional-Level Certifications

The Department of Curriculum and Instruction offers graduate-level programs leading to professional certificates. Certifications include Initial Teacher Certification (Early Childhood - Grade 6, Middle Level, Secondary, and All-Level) and the Reading Specialist and Master Reading Teacher Certification. Supplemental certification is available for English as a Second Language (ESL), Bilingual (BIL) and Gifted and Talented. The graduate-level coursework required for these programs may be applied toward a master's degree (M.Ed.T.). The Graduate Advisor works with the student to build an individual degree plan that incorporates one or more of these certification areas. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on these programs.

### Initial Teacher Certification

Students holding a baccalaureate degree may pursue initial teacher certification at the graduate level. Students must be admitted to the Graduate School as master's-degree-seeking students (students may elect to complete certification only) and be admitted to Teacher Certification in the College of Education and Health Professions (see a Teacher Certification advisor for current requirements). Up to 18 hours of graduate-level teacher certification hours may be applied toward an M.Ed.T. Students must also complete the student teaching requirements and pass the appropriate TExES exams. Candidates for Teacher Certification must also meet all state requirements for coursework in their teaching field/academic specialization. Note, certification students must be advised and cleared to take teacher certification courses through Teacher Certification Advising. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### Master Reading Teacher Certificate (available online)

This certification focuses on the needs of the multicultural and multilingual classrooms of today. To qualify for the Master Reading Teacher (MRT) Certificate, students must complete nine semester credit hours and pass the Master Reading Teacher TExES. Students who complete the requirements for the Reading Specialist certificate and are recommended for that certificate may apply for the MRT as well without taking the MRT exam. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### Reading Specialist Certification (available online)

Teachers interested in focusing on the important area of reading may pursue the Reading Specialist Certificate, an all-level (K-12) certificate. This unique program focuses on the needs of the multicultural and multi-linguistic classrooms of today with the possibility of integrating the requirements for the Master Reading Teacher and the supplemental certification for ESL into the total program if desired. To qualify for the Reading Specialist Certificate, students must complete a master's degree, hold a valid Texas teacher certificate, document two years of acceptable classroom teaching experience, and pass the Reading Specialist TExES. Those who already hold a master's degree and who are seeking only the Reading Specialist Certificate are required to complete 27 semester credit hours. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### English as a Second Language (ESL) (available online)

The English as a Second Language (ESL) certification prepares candidates to teach children from all cultural and language backgrounds (speakers of Spanish, Vietnamese, etc.), and is required for those teachers working with students in grades PK-12 whose first language is not English. (No foreign language background is required for the ESL certificate.) The ESL endorsement may be added to any valid Texas teacher certificate. Students are required to take four required courses in any sequence, complete a practicum in an ESL classroom or one year of successful teaching experience in an ESL or Bilingual Education program approved by the Texas Education Agency, and pass the ESL TExES. (The four courses may be applied toward a master's degree and to the Reading Specialist Certificate.) See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### Bilingual Education (BIL)

Teachers who are fluent in Spanish and wish to specialize in bilingual education will want to add the Bilingual Education to their initial certification. The required 12 hours of coursework may be incorporated into a master's degree program developed in consultation with the Graduate Advisor and graduate faculty. Students are required to take four courses and provide documentation of one year of successful teaching experience in a bilingual setting approved by the Texas Education Agency. Candidates must also pass the EC-6 Bilingual Generalist, and the Bilingual Target Language Proficiency Test--Spanish. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) for more details on the program.

### School Counseling Certification

UTA's Counseling Certification Program is designed for teachers who hold a master's degree in Education and who have at least two years of teaching experience. At the end of the required 15 hours of coursework, successful candidates must pass the TExES certification examination for School Counselors. This will qualify them to hold positions as school guidance counselors at any level from kindergarten through grade 12 in Texas schools. The six-course, 15-hour counseling program will be taught on campus during after-school hours. A six-hour supervised counseling practicum will take place in schools or on campus with school-age children. The practicum hours must be successfully accomplished in order for the candidate to be approved by the UTA to take the state exam. A school counselor needs to acquire the academic knowledge and skills necessary to do the job but additionally must have a personality or disposition appropriate for helping professions. Candidates will be expected to complete the supervised practicum that will allow them the opportunity to demonstrate they can work successfully with students and others in the educational environment. Admission requirements include a completed master's degree from an accredited university in any approved area of education, transcript of both undergraduate and

graduate coursework, and a minimum of two completed years of successful teaching either in public or private schools in any grade, K-12. A letter of support documenting the successful teaching experience will be required. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) or contact program director Dr. Mary Lynn Crow ([mlcrow@uta.edu](mailto:mlcrow@uta.edu)) for more details on the program.

## **BEEP Courses**

### **BEEP5315 – PRACTICUM**

3 Lecture Hours · 0 Lab Hours

Practicum in student's teaching area(s). This semester-long experience will help students apply theory and research to practice.

### **BEEP5318 – FOUNDATIONS IN BILINGUAL EDUCATION**

3 Lecture Hours · 0 Lab Hours

Analyzes the development of bilingual education in the United States. Introduces bilingual education program models and discusses research findings on their effectiveness.

### **BEEP5321 – ESL METHODS FOR EC-6 LEARNERS**

3 Lecture Hours · 0 Lab Hours

Compares first and second-language acquisition processes. Identifies effective teaching practices to meet the needs of English language learners. Analyzes elements from Spanish that can affect the acquisition of literacy in English.

### **BEEP5361 – LANGUAGE LEARNING: EDUCATIONAL PERSPECTIVES**

3 Lecture Hours · 0 Lab Hours

Deals with the relationship between first and second language acquisition and literacy, dialect, linguistics, culture; nature and definition of language; overview of linguistic science and language with pedagogical applications.

### **BEEP5362 – LITERACY INSTRUCTION IN ESL/BILINGUAL SETTINGS**

3 Lecture Hours · 0 Lab Hours

Translation of theory into practice stressing various methods and techniques for teaching ESL/bilingual students with emphasis on techniques for oral language development, reading and writing. A comparison/contrast of the various methods, their specifics, and when and how to use them for various instructional objectives as well as the relationship of language development, culture, and conceptual processes to language teaching.

### **BEEP5363 – LITERACY DEVELOPMENT IN ENGLISH AND SPANISH**

3 Lecture Hours · 0 Lab Hours

Focuses on the development of literacy in bilingual students with specific emphasis on the rationale, methods, and materials for literacy instruction in the student's home language. Attention to evaluating and supplementing first-language literacy materials and supporting the successful transition from first-language literacy instruction to literacy instruction in English.

### **BEEP5364 – LITERACY INSTRUCTION IN SPANISH IN THE CONTENT AREAS**

3 Lecture Hours · 0 Lab Hours

Focuses on methods and materials for teaching content-area subjects in the student's home language. Additional focus on supporting the transition from home-language instruction to English-language instruction.

## **BEEP5365 – ORGANIZATION & ADMINISTRATION OF DUAL LANGUAGE PROGRAMS**

2 Lecture Hours · 1 Lab Hour

Analysis of the research background and implementation of various models of dual language instruction. Insight of the process, data collection, and reporting requirements of the state and federal special populations legislation. This course requires an internship with the office of Federal Programs and/or the office of Bilingual/ESL Education in local school districts. Prerequisite: BEEP 5318.

## **BEEP5366 – SPANISH FOR SCHOOL ADMINISTRATORS & TEACHERS**

3 Lecture Hours · 0 Lab Hours

Development of Spanish proficiency for teachers and administrators through an immersion approach. Emphasis on concepts and terminology related to education, program administration, community involvement, and communication with Spanish-speaking parents. This course can be repeated.

## **BEEP5391 – INDEPENDENT RESEARCH**

3 Lecture Hours · 0 Lab Hours

Research for course substitution or a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **ECED Courses**

### **ECED5190 – SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION**

1 Lecture Hour · 0 Lab Hours

An examination of different topics related to early childhood education. This course may be repeated for credit with permission.

### **ECED5191 – INDEPENDENT RESEARCH**

1 Lecture Hour · 0 Lab Hours

Research over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **ECED5290 – SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION**

2 Lecture Hours · 0 Lab Hours

An examination of different topics related to early childhood education. This course may be repeated for credit with permission.

### **ECED5291 – INDEPENDENT RESEARCH**

2 Lecture Hours · 0 Lab Hours

Research over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **ECED5310 – DIVERSE POPULATIONS IN TODAY'S SCHOOLS**

3 Lecture Hours · 0 Lab Hours

Provides preparation for accommodating children with special needs in EC-6 classroom settings. Focus on characteristics of children with special needs, program accommodations, legal issues, individual assessment and planning, family and agency involvement, and inclusion strategies. Course will examine a variety of diverse settings where children and families live and learn, including homeless shelters.

### **ECED5321 – LANGUAGE AND LITERACY DEVELOPMENT YEARS**

3 Lecture Hours · 0 Lab Hours

Examine relationships among listening, speaking, reading, and writing. Focus on verbal and non-verbal

communication skills in native and second-language development. Consider theories of speaking, reading, and writing in children, with focus on the use of children's literature in social and cognitive development.

### **ECED5390 – SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to early childhood education. This course may be repeated for credit with permission.

### **ECED5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **EDML Courses**

### **EDML5302 – SCIENCE IN THE MIDDLE GRADES**

**3** Lecture Hours · **0** Lab Hours

The examination of instructional strategies, materials, current research, and technology pertinent to teaching science in the middle grades; the scope and sequence of science content and implementation of instructional approaches to accommodate diverse student populations.

### **EDML5303 – MATHEMATICS IN THE MIDDLE GRADES**

**3** Lecture Hours · **0** Lab Hours

The examination of instructional strategies, materials, current research, and technology pertinent to teaching mathematics in the middle grades; the scope and sequence of math content and the selection and implementation of instructional approaches to accommodate diverse student populations.

### **EDML5304 – SOCIAL STUDIES IN THE MIDDLE GRADES**

**3** Lecture Hours · **0** Lab Hours

An examination of content, methods, current research, and learning theory appropriate for social studies education in the middle grades. Special attention to methods that promote analytical and evaluative abilities necessary for participatory democracy in a culturally diverse society.

### **EDML5308 – MIDDLE GRADES ORGANIZATION, INSTRUCTION, AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

The examination of principles, theories, and research related to developmentally responsive middle level programs, effective instruction and effective strategies of classroom management. Attention is given to the employment of a variety of approaches for developing an appropriate climate to meet the varying needs of the middle level student.

### **EDML5315 – PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Practicum in student's teaching area(s). This longitudinal experience will help students apply theory and research to practice.

### **EDML5328 – PREADOLESCENT/ADOLESCENT GROWTH, DEVELOPMENT, AND LEARNING THEORY**

**3** Lecture Hours · **0** Lab Hours

Physical, social, emotional, and cognitive growth patterns of 10- to 15-year-old children, emphasizing familial, cultural, societal, and genetic determinants of behavior. Attention is given to current research regarding the developmental characteristics of adolescents, including exceptional learners and students



with special needs.

### **EDML5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **EDTC Courses**

### **EDTC5190 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDTC5191 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. May be repeated for credit with permission.

### **EDTC5290 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDTC5291 – INDEPENDENT RESEARCH**

**2** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDTC5300 – INTRODUCTION TO FOUNDATION OF EDUCATION INSTRUCTIONAL DESIGN AND TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Analysis of integrating TEKS, computers and related technologies in education. Topics include issues and concerns prior to integration, use of software in teaching and learning, identifying resources and strategies for use of the World Wide Web, and creating instructional activities into and across curriculum.

### **EDTC5301 – CURRENT APPLICATIONS OF TECHNOLOGY IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Study of technology use in educational environments. Topics include: instructional, learning, assessment, and management applications; a review of current research on selection, evaluation, and integration of appropriate media; and computer hardware and software, multimedia, laser disk, CD-ROM, and telecommunications systems.

### **EDTC5302 – INTERNET IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Course is designed to aid educators and training professionals in developing robust techniques for locating, utilizing, and creating Internet resources for professional productivity and research.

### **EDTC5310 – COMPUTER APPLICATIONS IN CURRICULUM AND INSTRUCTION**

**3 Lecture Hours · 0 Lab Hours**

Designed for both elementary and secondary teachers; skills and methods necessary to implement computer applications within the curriculum. Methods for managing the computer in the classroom, courseware telecommunications within the curriculum.

### **EDTC5320 – WEB AUTHORING**

**3 Lecture Hours · 0 Lab Hours**

Study of Web site planning, development and HTML tagging. Topics include: storyboards, content creation, Web site tagging with browser independent tags, use of color and fonts to communicate concepts, interactivity by design, ethical use of and respect for intellectual property, understand copyright, fair use, patent, and trademarks, the Master Technology Teacher Standards (EC-12) and the Standards for Basic Endorsement in Educational Computing and Technology Literacy.

### **EDTC5330 – DESKTOP PUBLISHING**

**3 Lecture Hours · 0 Lab Hours**

Study of desktop publishing planning, development, and production. Topics include: desktop publishing terminology, basic design theory, principles of form and design, guidelines for desktop publishing, ethical use of and respect for intellectual property, understand copyright, fair use, patent, and trademarks, the Master Technology Teacher Standards (EC-12) and the Standards for Basic Endorsement in Educational Computing and Technology Literacy.

### **EDTC5340 – MULTIMEDIA**

**3 Lecture Hours · 0 Lab Hours**

Study of multimedia planning, development, and implementation that maximize the use of technology, student learning, and teacher effectiveness. Topics include: methodologies for tutorials, hypermedia, drills, simulations, educational games, open-ended learning environments, testing, Web-based learning, interactivity by design, ethical use of and respect for intellectual property, understand copyright, fair use, patent, and trademarks, the Master Technology Teacher Standards (EC-12) and the Standards for Basic Endorsement in Educational Computing and Technology Literacy.

### **EDTC5390 – SELECTED TOPICS IN EDUCATION**

**3 Lecture Hours · 0 Lab Hours**

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDTC5391 – INDEPENDENT RESEARCH**

**3 Lecture Hours · 0 Lab Hours**

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. May be repeated for credit with permission.

## **EDUC Courses**

### **EDUC5190 – SELECTED TOPICS IN EDUCATION**

**1 Lecture Hour · 0 Lab Hours**

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDUC5191 – INDEPENDENT RESEARCH**

**1 Lecture Hour · 0 Lab Hours**

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.



### **EDUC5263 – READING AND DEVELOPMENT**

**2** Lecture Hours · **0** Lab Hours

This course will focus on the acquisition of reading skills in the typically developing child. Sub-skills and precursors of reading such as visual and phonological processing will be examined from a neurological point of view. This foundational knowledge will then be applied to researching reading difficulties as well as the teaching and learning in the classroom for typically developing students and those with reading difficulties.

### **EDUC5290 – SELECTED TOPICS IN EDUCATION**

**2** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDUC5291 – INDEPENDENT RESEARCH**

**2** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **EDUC5305 – CURRICULUM DESIGN, IMPLEMENTATION, AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation. Emphasis on current trends in the content areas.

### **EDUC5309 – ADVANCED INSTRUCTIONAL STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

This course engages students in a study of advanced models of teaching and learning such as concept attainment, inductive thinking, inquiry, problem-based learning, role play, simulation games and other models, with an analysis of research on the effectiveness of these models. Emphasis is on current trends in the content areas.

### **EDUC5310 – DIVERSE POPULATIONS IN TODAY'S SCHOOLS**

**3** Lecture Hours · **0** Lab Hours

An overview of the diverse populations in today's schools. Urban, suburban, and rural school communities and populations will be addressed with special attention to issues of human growth and development, culture, ethnicity, exceptionality, gender, language, religion and socioeconomic status.

### **EDUC5314 – EFFECTIVE CLASSROOM INSTRUCTION**

**3** Lecture Hours · **0** Lab Hours

Designed to provide teachers with skills and competencies based on research findings on effective teaching and instruction related to promoting student academic achievement. Includes identifying, developing, and practicing instructional variables that affect teacher performance and student learning tasks.

### **EDUC5315 – PRACTICUM**

**0** Lecture Hours · **3** Lab Hours

Practicum in student's teaching area. This longitudinal experience will help students apply theory and research to practice.

### **EDUC5321 – EDUCATIONAL RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Examination of basic concepts and procedures necessary for empirical research investigations within classroom contexts, experimental design, data collection and interpretation, and statistical analysis.

## **EDUC5322 – EDUCATIONAL RESEARCH AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An overview of basic concepts and procedures necessary for analyzing, designing, and conducting quantitative and qualitative educational studies. A focus on educational research, including empirical research, investigations data collection and interpretation, and statistical analysis. Also, a focus on educational evaluation including accreditation, personnel appraisal, and educational programs and materials.

## **EDUC5329 – CLASSROOM MANAGEMENT AND DISCIPLINE**

**3** Lecture Hours · **0** Lab Hours

Analysis of the variables that affect teacher and student behavior in the classroom. Survey of effective strategies of classroom management and discipline based on contemporary research. Particular attention to individual student differences in settings such as gifted and talented, handicapped, and learning disabled.

## **EDUC5330 – LEADERSHIP IN THE INSTRUCTIONAL SETTING**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement.

## **EDUC5358 – THEMATIC SCIENCE FOR ELEMENTARY AND SECONDARY TEACHERS**

**3** Lecture Hours · **0** Lab Hours

Professional development program for elementary and secondary science teachers who will examine a variety of instructional strategies. The course will provide a broad spectrum of content from all areas of science and provide opportunities to participate in investigations, field trips and seminars. The course will facilitate the implementation of a thematic science curriculum in elementary and secondary schools through research-based practices.

## **EDUC5359 – ENVIRONMENTAL SCIENCE FOR ELEMENTARY AND SECONDARY TEACHERS**

**2** Lecture Hours · **2** Lab Hours

Designed for elementary, middle and high school teachers who will examine a variety of environmental education issues and instructional strategies for classroom and outdoor settings. The course will provide a broad spectrum of content from all areas of science and will provide opportunities to participate in field trips, science investigations and seminar sessions. It will facilitate the implementation of an environmentally based curriculum in schools using best practices.

## **EDUC5360 – INTRODUCTION TO MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Students will explore and integrate five themes central to the emerging field of Mind, Brain and Education (MBE): development as seen by cognitive scientists and neuroscientists; the conceptual and technical tools used in MBE; and specific educational issues (e.g., dyscalculia, dyslexia, attention deficits, role of emotions etc.). The five themes function as layers students peel back to reveal the complexity of integrating three major disciplines into one field of study.

## **EDUC5361 – INTRODUCTION TO EDUCATIONAL NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

This course is designed to provide an introduction to foundational areas of neuroscience such as brain anatomy and brain mapping techniques and its applications to education. Students will study different viewpoints of links between education and neuroscience and develop their own notions of what educational

questions might be answered with brain-based techniques.

### **EDUC5362 – THE NEUROSCIENCE OF TYPICAL AND ATYPICAL LANGUAGE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course will examine the many levels of language including phonetics, phonology, semantics, syntax and pragmatics from both functional and neuroscientific perspectives.

### **EDUC5363 – THE NEUROSCIENCE OF TYPICAL AND ATYPICAL DEVELOPMENT OF MATHEMATICAL AND REASONING ABILITY**

**3** Lecture Hours · **0** Lab Hours

The course focuses on the development of problem-solving, logical, numeracy, and mathematical skills from a cognitive neurocognitive perspective. Woven throughout the course is attention to cognitive biases in scientific thinking.

### **EDUC5364 – EPISTEMOLOGY AND NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

This course looks at how the brain supports the basic approaches of the mind uses to produce knowledge. In particular we compare the deductive and inductive methods and the neurological correlates that support both forms of knowledge production. Also examined is the role of the frontal cortex in decision making that results in the learner's choices in how to make sense of data.

### **EDUC5365 – THEORETICAL AND CONCEPTUAL MODELS IN MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

This course is designed for students who wish to connect cognitive science to instructional practice. Students examine the roles that cognitive models in psychology play in learning and in curriculum design. The cognitive models in this course are used to provide a framework for recognizing possible strategies for improving or redesigning curricula, or to begin building lessons

### **EDUC5366 – DYNAMIC SYSTEMS - UNDERSTANDING COMPLEXITY IN EDUCATIONAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

This course focuses on making sense of the impact of interactions between educational variables in complex systems like classrooms and schools.

### **EDUC5367 – RESEARCH METHODS IN MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

This course presents an overview of the process of scientific inquiry in general, while fostering an understanding of research paradigms used by educational practitioners. To meet the course objectives students will examine studies from the cognitive neurosciences and medicine. While these modern methods of inquiry are complex, the findings are nevertheless, often, fairly simple to understand, and easily support the primary goal of the course.

### **EDUC5368 – CONDUCTING RESEARCH IN MIND, BRAIN, AND EDUCATION**

**3** Lecture Hours · **0** Lab Hours

This one to two semester course allows students to build a research project under faculty supervision. The goal of the course is to help students understand the nature and techniques involved in creating useable knowledge in mind, brain and education.

### **EDUC5370 – INTRODUCTION TO GIFTED AND TALENTED CHILDREN**

**3** Lecture Hours · **0** Lab Hours

Psychological characteristics of gifted and talented children. Introduction to identification techniques, educational programs, instructional approaches, and special problems.

### **EDUC5371 – MEASUREMENT AND ASSESSMENT OF GIFTED AND TALENTED CHILDREN**

**3** Lecture Hours · **0** Lab Hours

Tests, formal and informal measures, and systems for identification and selection of the gifted and talented student. Basic test construction theory, test interpretation, and test uses.

### **EDUC5372 – METHODS, MATERIALS, AND CURRICULUM FOR THE GIFTED AND TALENTED**

**3** Lecture Hours · **0** Lab Hours

Curriculum theory and curriculum design for the gifted student. Methodology for implementing practical and theoretical objectives for gifted instruction.

### **EDUC5373 – CREATIVITY: THEORIES, MODELS, AND APPLICATION**

**3** Lecture Hours · **0** Lab Hours

The concept of and current research on creativity, the nature and assessment of creative thinking, as well as methods of fostering creativity.

### **EDUC5374 – PRACTICUM**

**1** Lecture Hour · **5** Lab Hours

Participation in a gifted and talented setting supervised by a university and/or school district representative. A wide range of practical experiences will be emphasized. Graded P/F/R.

### **EDUC5380 – DIVERSITY IN EDUCATIONAL SETTINGS**

**3** Lecture Hours · **0** Lab Hours

Effective leadership, instruction, and management strategies for work in diverse educational settings. Designed to provide increased self-awareness and insight into issues of diversity such as culture, ethnicity, exceptionalism, gender, language, religion, and socioeconomic status. Demographic issues along with urban and suburban educational settings will also be addressed.

### **EDUC5390 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDUC5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

### **EDUC5394 – UNDERSTANDING CLASSROOM RESEARCH**

**3** Lecture Hours · **0** Lab Hours

In this course, students gain an understanding of educational research and critically analyze resources of research, such as professional journals, Internet sites, technical reports, ERIC (Education Resources Information Center) documents, and reports of professional organizations. The students will examine historical trends and themes in education and how they have changed and progressed to newer, cutting-edge educational research that informs classroom instruction. Students will analyze research data and reports of research with the purposes of, gaining understanding of sound educational research techniques; evaluating research designs including issues of validity and reliability; gaining knowledge of both quantitative and qualitative data collection procedures; interpreting the results and implications of research; and learning the form of technical, scholarly writing. Through course experiences, students will be prepared

to write meaningful research questions and design methodologies for conducting their own classroom research projects. Students will also learn to be effective consumers of research, equipped with skills needed to make sense of classroom, district, state, national, and international educational research studies. This course is to be taken after at least 9 hours of graduate course work and preceding EDUC 5395 and EDUC 5397.

### **EDUC5395 – DESIGNING CLASSROOM RESEARCH**

**3 Lecture Hours · 0 Lab Hours**

In this course, students will develop their own classroom educational research project. Their designed study will be based in the literature in their educational field and focus on classroom research questions and problems that will inform teaching practices. In this course, students will develop an individual research problem statement, argue the significance of the problem, complete a written literature review and logical chain of reasoning related to the stated problem, write specific research questions to investigate the problem in educational settings, and design a research study (methodology) that will effectively investigate their research questions. Students design a research study that shows promise for improving education, written as the first three chapters of a scholarly classroom action research project. Prerequisite: EDUC 5394. For M.Ed.T. students, this course is to be taken in the final semester of the masters' degree program. For M.Ed. students, this course is to be taken in the semester just prior to the final semester of the masters' degree program, and in the semester immediately preceding EDUC 5397.

### **EDUC5396 – EEG LABORATORY AND EXPERIMENTAL DESIGN**

**0 Lecture Hours · 3 Lab Hours**

This course is an introduction to EEG technique, covering experimental design, recording, analysis, and interpretation of brainwaves.

### **EDUC5397 – IMPLEMENTING AND DISSEMINATING CLASSROOM RESEARCH**

**3 Lecture Hours · 0 Lab Hours**

In this course, students will implement the classroom research designed and written in EDUC 5395, collect data from this research, and interpret results. Students will prepare a final, written research report that presents the investigation and its results in a 5-chapter professional format, such as would be prepared as a paper for presentation at a professional conference and/or publication in an educational journal. At the conclusion of this course, students will submit a copy of their research project report to the course instructor and present the completed project as their final Capstone Experience for the masters degree in education. Prerequisites: EDUC 5394 and EDUC 5395. This course is to be taken in the final semester of the M.Ed. and in the semester immediately following EDUC 5395.

### **EDUC5600 – COUNSELING STUDENTS IN SCHOOLS**

**3 Lecture Hours · 3 Lab Hours**

The focus of this capstone course will be individual and group counseling theories and techniques for pre k-12 students in an educational setting. Special techniques are included for substance abuse, and for using group play therapy. Knowledge of Diagnostic and Statistical Manual of Mental Disorders, 4th. Edition (DSM IV) will be covered for purposes of diagnosis and for outside referral when necessary. Three hours in a supervised counseling practicum in area schools or with school children will be required.

## **EDUCIR Courses**

### **EDUCIR5391 – INDEPENDENT RESEARCH**

**3 Lecture Hours · 0 Lab Hours**

Research for thesis substitute or equivalent over a topic agreed upon between the student and instructor. May be repeated for credit with permission.

## **LIST Courses**

### **LIST5191 – INDEPENDENT RESEARCH IN READING**

**1 Lecture Hour · 0 Lab Hours**

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

### **LIST5291 – INDEPENDENT RESEARCH IN READING**

**2** Lecture Hours · **0** Lab Hours

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

### **LIST5316 – LITERACY PRACTICUM I**

**1** Lecture Hour · **5** Lab Hours

This practicum is intended for entering in the M.Ed. with Literacy Emphasis who plan to teach reading and writing and become literacy coaches/certified Reading Specialists in K-12 schools. The course introduces the national Reading Specialist Standards and offers an overview of the program. The course combines an introduction to the theory, research, and knowledge in the field of literacy with application through field experiences in schools and classrooms. Students begin their program portfolio focused on the national Reading Specialist Standards. Graded F,P,W. Prerequisite: This course should be taken in the first or second semester of a student's program.

### **LIST5317 – LITERACY PRACTICUM II**

**1** Lecture Hour · **5** Lab Hours

This practicum is intended as the capstone experience for students in the M.Ed. with Literacy Emphasis who plan to teach reading and writing and become literacy coaches/certified Reading Specialists in K-12 schools. The course provides an opportunity to synthesize the theory and research related to literacy that has been presented in the program, to explore literacy program development and the implementation of technology in literacy programs, and to participate in professional leadership options. Students apply theory/research through field experiences in a professional setting. Students must complete their program portfolio focused on the national Reading Specialist Standards. Graded A,B,C,D,F,P,W. Prerequisite: LIST 5316 and at least 8 additional courses in the M.Ed. with Literacy Emphasis.

### **LIST5325 – UNDERSTANDING LITERACY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Designed as an introduction and exploration of literacy research. Provides the opportunity to read broadly in the area of literacy research to become aware of current trends in literacy research. Emphasizes the tools for critically consuming literacy research and utilizing existing research in personal examinations of literacy topics and questions. Course must be taken prior to LIST 5385.

### **LIST5326 – PRE-ADOLESCENT & ADOLESCENT LITERACY**

**3** Lecture Hours · **0** Lab Hours

Focuses on literacy theory, research, and practice as it relates to pre-adolescents and adolescents. Addresses sociocultural, cognitive, linguistic, psychological, and developmental influences on literacy. Explores the development of curricular designs for teaching reading/language arts in middle and secondary schools including reading, writing, oral communication, literature, and digital literacy.

### **LIST5345 – CONTENT AREA READING AND WRITING**

**3** Lecture Hours · **0** Lab Hours

Explores methods of teaching reading, writing, and study skills in content area subjects. Emphasis on text structure and the difference between narrative and expository text, graphic organizers for text structure, the reading/writing process as applied to informational text. Classroom adaptations for culturally and linguistically diverse populations in the content areas also will be addressed.

### **LIST5346 – TEACHING THE WRITING PROCESS**

**3** Lecture Hours · **0** Lab Hours

Current research and theory on the writing process, how children develop as writers, the teacher's role, the learning environment, and motivation, assessment, and evaluation in writing.

### **LIST5350 – LITERACY ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Formal and informal assessment of student literacy learning, and diagnosis of student literacy learning strengths and needs.

### **LIST5353 – LITERATURE FOR CHILDREN AND YOUNG ADULTS**

**3** Lecture Hours · **0** Lab Hours

Selection, evaluation, and use of current literature published for children and young adults.

### **LIST5354 – MULTICULTURAL LITERATURE FOR CHILDREN**

**3** Lecture Hours · **0** Lab Hours

Study of literature for children and young adults which reflects the culture and experiences of African-Americans, Asian-Americans, Mexican-Americans, and Native Americans, among others. Consideration of selection guidelines, evaluation of literary quality as well as cultural authenticity and teaching applications, including adaptations for culturally and linguistically diverse populations.

### **LIST5361 – LANGUAGE LEARNING: EDUCATIONAL PERSPECTIVES**

**3** Lecture Hours · **0** Lab Hours

Deals with the relationship between first and second language acquisition and literacy, dialect, linguistics, culture; nature and definition of language; overview of linguistic science and language with pedagogical applications.

### **LIST5362 – LITERACY INSTRUCTION IN ESL/BILINGUAL SETTINGS**

**3** Lecture Hours · **0** Lab Hours

Translation of theory into practice stressing various methods and techniques for teaching ESL/bilingual students with emphasis on techniques for oral language development, reading and writing. A comparison/contrast of the various methods, their specifics, and when and how to use them for various instructional objectives as well as the relationship of language development, culture, and conceptual processes to language teaching.

### **LIST5373 – FOUNDATIONS OF LITERACY LEARNING IN EC-6 CLASSROOMS**

**3** Lecture Hours · **0** Lab Hours

Balanced literacy approach to literacy instruction in EC-6 classrooms with an emphasis on reading and writing including the critical areas of: phonics, phonemic awareness, word study, fluency, and comprehension. In addition, the course examines various theoretical models of reading along with the principles of teaching reading and writing using a variety of instructional strategies, effective program organization, assessment, and classroom management.

### **LIST5381 – NATIONAL WRITING PROJECT PART I**

**3** Lecture Hours · **0** Lab Hours

An intensive institute in which teachers learn ways to improve student writing abilities by improving their own teaching and learning of writing. Students participate in an intensive literature review related to the area of writing instruction. Graded A,B,C,D,F,W. Prerequisite: Students must apply and be invited to participate in this course. Concurrent enrollment in LIST 5382.

### **LIST5382 – NATIONAL WRITING PROJECT PART II**

**3** Lecture Hours · **0** Lab Hours

An intensive institute in which teachers learn ways to improve student writing abilities by improving their own teaching and learning of writing. For this part of the workshop, students build on their literature review by writing a research proposal and developing research-based writing instruction. In addition, professional development training for classroom teachers is provided. Graded A,B,C,D,F,P,W. Prerequisite: Students must apply and be invited to participate in this course. Concurrent enrollment in LIST 5381.



### **LIST5383 – WRITING FOR PROFESSIONAL PUBLICATION**

**3** Lecture Hours · **0** Lab Hours

This course focuses instructor and peer interaction as students conduct literacy-related research, analyze data, write up the results, and disseminate their completed study to a professional journal. A comprehensive study of professional journals and their requirements for submission is included in this course. Graded A,C,D,F,P,W. Prerequisite: LIST 5385 or program advisor approval.

### **LIST5384 – ADVANCED PEDAGOGY OF WRITING**

**3** Lecture Hours · **0** Lab Hours

This course focuses on strategies for teaching prewriting, drafting, revising, editing, and publishing through writing workshop, literature focus units, and thematic units as well as through the content areas. Both writing assessment with rubrics and evaluation with portfolios are studied. Students compose both expository and expressive pieces as well as design and micro teach mini lessons and a web-based integrated writing unit. Graded A,B,C,D,F,P,W. Prerequisite: LIST 5346 or LIST 5381 and LIST 5382

### **LIST5385 – DESIGNING LITERACY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

This course is designed to build on the LIST 5325, Understanding Literacy Research, by providing an exploration of the process for quantitative, mixed methods or qualitative research design. Includes an examination of various research designs related to language and literacy development including models such as case studies, ethnography, observations and interviews. Students are lead through the research process including forming a theoretical epistemology, formulating research questions, reviewing literature, selecting methods of data collection, interpretation and analysis of data and writing a research proposal. Students will be expected to complete this research focus in the program capstone experience, LIST 5317. This course should immediately precede LIST 5317. Prerequisite: LIST 5325.

### **LIST5390 – SELECTED TOPICS IN READING**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics each semester, with a focus on subjects related to reading, writing, oral language, and literacy.

### **LIST5391 – INDEPENDENT RESEARCH IN READING**

**3** Lecture Hours · **0** Lab Hours

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

## **LISTIR Courses**

### **LISTIR5391 – INDEPENDENT RESEARCH IN READING**

**3** Lecture Hours · **0** Lab Hours

Individual or small group research project on a literacy-related topic agreed upon between student(s) and instructor. May be repeated for credit with permission.

## **MAED Courses**

### **MAED5351 – WHOLE NUMBERS, RATIONAL NUMBERS, & OPERATIONS**

**3** Lecture Hours · **0** Lab Hours

In this course students engage in activities and problem solving on concepts related to whole numbers, rational numbers and operations. Students in the course will learn to utilize research-based, problem-based teaching methods to promote K-12 student understanding. Students will experience how K-12 students learn these concepts as they themselves engage in computation and problem solving activities transferrable to classroom practice. In this course, students will engage in experiences to learn and teach their K-12 students on using numbers, number systems and their structure, operations and algorithms, quantitative reasoning, and technology.



### **MAED5352 – PATTERNS & ALGEBRA**

**3** Lecture Hours · **0** Lab Hours

This course engages students in problem-based teaching and curriculum development to help children learn problem solving and critical thinking with an emphasis on patterns, relations, functions, algebraic reasoning, analysis, and technology. The course incorporates research shown effective in helping children develop necessary skills for algebraic reasoning as a foundation for higher level mathematics learning.

### **MAED5353 – PROBABILITY & STATISTICS**

**3** Lecture Hours · **0** Lab Hours

In this course students will engage in learning experiences and readily usable curricula for teaching K-12 students concepts of probability and statistics, their applications, and technology. Students will examine K-12 student learning and research-based practices that best help them understand these mathematical concepts and that will promote their development of probabilistic reasoning abilities.

### **MAED5354 – PROBLEM SOLVING**

**3** Lecture Hours · **0** Lab Hours

In this course, students experience and practice innovative curricula for teaching and learning problem solving. Students engage in hands-on activities and apply various problem solving techniques, using mathematical processes to reason mathematically, to solve mathematical problems, to make mathematical connections within and outside of mathematics, and to communicate mathematically. Students learn to identify relevant and irrelevant variables in problems and work through problems to arrive at meaningful solutions. Students examine research on ways to help K-12 students become effective problem solvers as transferrable to other mathematics topics and subjects across the curriculum.

### **MAED5355 – CONCEPTUAL GEOMETRY**

**3** Lecture Hours · **0** Lab Hours

In this course students will experience and incorporate active learning curricula that utilize a variety of manipulative materials, diagrams, models, and pictures to study geometry and spatial reasoning. The students will learn effective, research-based practices for teaching geometry and examine ways to best help K-12 students build geometric and spatial understandings as a foundation for later, more complex abstract visualizations.

### **MAED5356 – MEASUREMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on inquiry-based, problem-based curricula that help K-12 students learn concepts of measurement including units of measure, standardization, and error. Students will learn to use teaching techniques that will promote K-12 students' understanding as well as the application of measurement concepts to other subjects and to everyday life experiences.

## **SCED Courses**

### **SCED5351 – PHYSICAL SCIENCE - PROPERTIES AND CHANGES IN MATTER**

**3** Lecture Hours · **0** Lab Hours

This course provides an in depth study of the properties and changes in matter and how to teach these concepts to students in grades K-12 science. Students study matter by engaging in inquiry and field/laboratory investigations using scientific processes, critical thinking, and problem solving. The course will help students learn to teach these physical science concepts to K-12 students using inquiry models.

### **SCED5352 – PHYSICAL SCIENCE - FORCE & ENERGY**

**3** Lecture Hours · **0** Lab Hours

In this course, students gain scientific knowledge about characteristics and interactions among matter, force, and energy with interdisciplinary and everyday life connections. Topics experienced through laboratory/field based investigations include: gravity, work, friction, acceleration, volume, length, distance, light, forms of energy, electricity, heat, and simple machines. The course will help students learn to teach these physical science concepts to K-12 students using inquiry models.

## **SCED5353 – EARTH SCIENCE - STRUCTURES, MOVEMENT, & CHANGES IN EARTH & SPACE**

**3** Lecture Hours · **0** Lab Hours

Through laboratory investigations, students gain knowledge of the various constructive and destructive forces that shape and alter the Earth's surfaces such as plate tectonics, volcanoes, earthquakes, erosion, weathering and deposition, as well as conservation of resources. The course will include studies of rock identification, and the rock cycle, as well as geologic time and the fossil record. The course includes study of earth, moon and planetary characteristics and motions. The course will enable students to teach these earth science concepts to K-12 students using inquiry models.

## **SCED5354 – EARTH SCIENCE - WATER PROPERTIES, DISTRIBUTION, THE WATER CYCLE, & WEATHER**

**3** Lecture Hours · **0** Lab Hours

Students gain understanding of the importance of water including the topics of cohesion, adhesion, surface tension, and capillary action. Water distribution on Earth is analyzed using maps and charts, with connections to geographic and climatic characteristics of the various regions. Water, as a major factor in weather, along with other meteorological variables such as air pressure, humidity, dew point, and cloud formation will be studied and weather patterns will be tracked over time using technology and maps. The course will provide students with the knowledge and skills required to teach these earth science concepts to K-12 students using inquiry models.

## **SCED5355 – LIFE SCIENCE - UNITY & DIVERSITY OF LIFE & LIFE PROCESSES**

**3** Lecture Hours · **0** Lab Hours

This course will explore living organisms and classification of organisms. The course will focus on the unity of life including the cell and cell components and the life functions, as well as the diversity of life including a look at pathogenic agents including bacteria and viruses. The course will analyze the structure and function of DNA and genetics. The course will include comparative anatomy and physiology studies of organisms. Students will learn how to teach these life science concepts to K-12 students using inquiry models.

## **SCED5356 – LIFE SCIENCE - CYCLES IN NATURE, ADAPTATIONS, AND ENVIRONMENTAL SCIENCE**

**3** Lecture Hours · **0** Lab Hours

This course analyzes life, biochemical, and geochemical cycles within the natural world and how they impact ecological systems and environment. Students conduct laboratory and field investigations to examine and recognize various plant and animal adaptations. Science topics include camouflage, mimicry, body coverings, mouthparts, habitats. Math-science integrations include estimations, relationships, graphing, and number sense. Inquiry models will be used to help students learn to teach these life science concepts to K-12 students.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
    - Curriculum and Instruction
    - Educational Leadership and Policy Studies
    - Kinesiology
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Educational Leadership and Policy Studies

College of Education and Health Professions

### Chair Casey Brown

Web [www.uta.edu/coed/educleadership/](http://www.uta.edu/coed/educleadership/)

Email [education@uta.edu](mailto:education@uta.edu)

Phone 817.272.2591

Fax 817.272.2530

105 Trimble Hall

---

### Degrees / Certificates

#### Master's Degrees

Accelerated Online Ed. Leadership & Policy Studies, M.Ed. Non Thesis  
Ed. Leadership & Policy Studies, M.Ed.

#### Doctoral Degrees

Ed. Leadership & Policy Studies (K-16), Ph.D.

#### Certificates

Accelerated Online Ed. Leadership & Policy Studies, Superintendent  
Ed. Leadership & Policy Studies, Certification Only  
Principal Certificate  
Superintendent Certificate

---

### Graduate Faculty

[Casey Brown](#)  
[Bradley Davis](#)  
[Taryn Ozuna](#)  
[Daniel B Saunders](#)  
[Maria Trache](#)  
[Yi Zhang](#)

#### Professor

[Jeanne Gerlach](#)

#### Associate Professor

[Carrie Ausbrooks](#)  
[James Hardy](#)  
[Rhonda McClellan](#)  
[Lewis Wasserman](#)

#### Assistant Professor

[Ifeoma Amah](#)  
[Barbara Tobolowsky](#)

#### Assistant Clinical Professor

[Ernest Johnson](#)

**Senior Lecturer**  
**Kent Gardner**

**Lecturer**  
**Harold Smith**

**Special Assistant**  
**Ronald Caloss**

---

## Graduate Advisors

**Casey Brown**  
*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Ernest Johnson**  
*Ed. Leadership & Policy Studies, M.Ed.*

**Barbara Tobolowsky**  
*Ed. Leadership & Policy Studies (K-16), Ph.D.*

---

## Department Information

### Courses

# Department Information

### Admissions Requirements - Master's Program

- Unconditional Admission
- Probationary Admission
- Provisional Admission
- Deferred Admission
- Denied Admission

### Programs

- Master's Degree with Principal Certification Courses
- Principal Certification Preparation Only (PCO)
- Probationary Principal Certificate
- Superintendent Certificate
- Master of Education in Educational Leadership and Policy Studies, with Principal Certificate
- Master of Education in Educational Leadership and Policy Studies, with Principal Certificate, Dual-Language Emphasis
- Master of Education in Educational Leadership and Policy Studies, with Higher Education Administration Emphasis
- Principal Certification Preparation Only (for students who already have a master's degree)
- Superintendent Certificate
- Coursework and Degree Completion Requirements
- Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies

## Admissions Requirements - Master's Program

### Unconditional Admission

Applicants are typically offered unconditional admission if they meet two of the three following criteria:

- An undergraduate grade point average (GPA) of 3.0 or higher on a 4.0 scale, as calculated by the Graduate School or a graduate GPA of 3.5 or higher on a 4.0 scale on 12 or more hours as calculated by the Graduate School may be used in lieu of the undergraduate GPA
- A minimum of two of the following three Graduate Record Examination (GRE) scores: (1) verbal minimum score of 153, (2) quantitative score of 144, (3) written analytical minimum score of 3.5. For exams taken before August 1, 2011, a minimum of two of the three scores are required: (1) verbal minimum score of 500, (2) quantitative minimum score of 500, (3) written analytical minimum score of 3.5.
- 3 letters of reference on file, completed by three persons who can assess the applicant's aptitude, academic skills, and abilities needed for success in the Educational Leadership and Policy Studies master's program

### Probationary Admission

Applicants are typically offered probationary admission if they meet two of the three following criteria:

- An undergraduate grade point average (GPA) of at least 2.8 on a 4.0 scale, as calculated by the Graduate School or a graduate GPA of 3.3 or higher on a 4.0 scale on 12 or more hours as calculated by the Graduate School may be used in lieu of the undergraduate GPA
- A minimum of two of the following three Graduate Record Examination (GRE) scores: (1) verbal minimum score of 146, (2) quantitative score of 140, (3) written analytical minimum score of 3.0. For exams taken before August 1, 2011, a minimum of two of the three scores are required: (1) verbal minimum score of 400, (2) quantitative minimum score of 400, (3) written analytical minimum score of 3.0.
- 3 letters of reference on file, completed by three persons who can assess the applicant's aptitude, academic skills, and abilities needed for success in the Educational Leadership and Policy Studies master's program

**Terms of Probation upon Acceptance:** All students admitted under probation status will be required to earn a 3.5 GPA during the first 12 hours of graduate coursework in the program.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admissions deadline, but whom otherwise appears to meet admissions requirements may be granted provisional admission.

### Deferred Admission

An applicant's admission may be deferred when a file is not complete or when denying admission is not appropriate.

### Denied Admission

An applicant may be denied admission if the conditions for unconditional and probationary admission have not been met.

In addition, if a student has been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons, that student may be denied admission or readmission to an educator preparation program in the College of Education and Health Professions.

## Programs

The Department of Educational Leadership and Policy Studies offers the Master of Education (M.Ed.) in Educational Leadership and Policy Studies. In addition to core courses in educational leadership and policy studies, three distinct emphases are available: Principal Certificate, Principal Certificate with Dual Language, and Higher Education Administration. For those with a master's degree, the Department offers certification preparation courses for candidates seeking a Principal Certificate or a Superintendent Certificate.

### Master's Degree with Principal Certification Courses

The Master's Degree includes courses required for candidates seeking the Texas Principal Certification. In addition to obtaining the Master's Degree, candidates must also pass the Texas Principal Certification exam, have a valid Texas Teacher Certificate, and have at least two years of accredited classroom teaching experience. Candidates must have their school district send via U.S. mail (not fax) their official Texas Teacher Service Record to the Certification Officer in the UT Arlington College of Education and Health Professions. Courses for the Master's Degree are offered at both the UT Arlington and the Fort Worth Santa Fe campuses. The Department also offers the Master's Degree with Principal Certification courses entirely on-line through Academic Partnerships.

### Principal Certification Preparation Only (PCO)

For students with a Master's Degree, the Department has a Principal Certification Only (PCO) program that is 21 hours (seven courses). These candidates must also pass the Texas Principal Certification exam, have a valid Texas Teacher Certificate, and have at least two years of accredited classroom teaching experience. Candidates must have their school district send via U.S. mail (not fax) their official Texas Teacher Service Record to the Certification Officer in the UT Arlington College of Education and Health Professions. Courses for the Master's Degree are offered at both the UT Arlington and the Fort Worth Santa Fe campuses. The PCO program is not available online through Academic Partnerships.

### Probationary Principal Certificate

A candidate who has completed (grades posted) all requirements (EDAD 5360, 5381, 5383, 5384) and is enrolled in 5389 Practicum or 5399 Capstone Practicum may apply for the Probationary Principal Certificate. In order for UT Arlington to recommend a candidate for the Probationary Principal Certificate, the candidate must have a district administrative/practicum employment assignment. The Probationary Principal Certificate issued by the state is valid for one year from the date of issuance, renewable annually for 2 consecutive years for a maximum of 3 years total.

Principal certification candidates on a Probationary Principal Certificate must maintain continual enrollment in the Educational Leadership and Policy Studies department by taking EDAD 5389 or an equivalent course approved by the ELPS faculty graduate advisor. This applies to all of the three years allowed for probationary certificates.

For more information on how to apply, contact the College of Education and Health Professions Certification Office.

### Superintendent Certificate

The Department of Educational Leadership and Policy Studies offers coursework and practicums leading to a Superintendent Certificate. Upon completion of superintendency coursework, Texas administrators seeking a Texas Superintendent Certificate must make a passing score on the Superintendent Texas Examination of Educator Standards (TExES) and provide evidence of Principal or equivalent certification before they will be recommended to the State Board for Educator Certification (SBEC) for issuance of the certificate.

Required EDAD courses for the Superintendent Certificate: 6179, 6279, 6371, 6373, 6374, and 6378. Currently, courses are offered in an online-only format through Academic Partnerships.

## Master of Education in Educational Leadership and Policy Studies, with Principal Certificate

### Core Courses - 18 credit hours

EDAD 5322: Educational Research and Evaluation  
EDAD 5360: Leadership Theory  
EDAD 5365: Leading Change in Learning Organizations  
EDAD 5380: Diversity and Equity in Education  
EDAD 5388: Policy and Politics in Education  
EDAD 5399: Capstone Practicum in Educational Leadership and Policy Studies

### Principal Certificate Courses - 18 credit hours

EDAD 5305: Curriculum Development and Supervision  
EDAD 5330: Leadership in the Instructional Setting  
EDAD 5381: Political and Legal Aspects of Education  
EDAD 5383: The Principalship  
EDAD 5384: Resource Management in Education  
EDAD 5389: Practicum

**Degree Total (minimum): 36 credit hours**

## Master of Education in Educational Leadership and Policy Studies, with Principal Certificate, Dual-Language Emphasis

### Core Courses - 18 credit hours

EDAD 5322: Educational Research and Evaluation  
EDAD 5360: Leadership Theory  
EDAD 5365: Leading Change in Learning Organizations  
EDAD 5380: Diversity and Equity in Education  
EDAD 5388: Policy and Politics in Education  
EDAD 5399: Capstone Practicum in Educational Leadership and Policy Studies

### Principal Certificate/Bilingual Courses - 18 credit hours

BEEP 5321: English Language Learning Methods EC-6  
EDAD 5330: Leadership in the Instructional Setting or EDAD 5383: Principalship  
EDAD 5381: Political and Legal Aspects of Education  
BEEP 5366: Enhancing Spanish Proficiency  
BEEP 5318: Foundations of Bilingual Education  
BEEP 5365: Organization and Administration of Dual Language Programs

**Degree Total (minimum): 36 credit hours**

## Master of Education in Educational Leadership and Policy Studies, with Higher Education Administration Emphasis

### Core Courses - 18 credit hours

EDAD 5322: Educational Research and Evaluation  
EDAD 5360: Leadership Theory  
EDAD 5365: Leading Change in Learning Organizations  
EDAD 5380: Diversity and Equity in Education  
EDAD 5388: Policy and Politics in Education  
EDAD 5399: Capstone Practicum in Educational Leadership and Policy Studies

### Higher Education Emphasis Courses - 18 credit hours

EDAD 5305: American College Student Experience  
EDAD 5351: Higher Education Administration and Student Affairs  
EDAD 5352: Higher Education Law  
EDAD 5354: The American Community College  
EDAD 5356: History, Principles, and Philosophy of Higher Education  
EDAD 5357: Higher Education Trends/Issues



**Degree Total (minimum): 36 credit hours**

**Principal Certification Preparation Only (for students who already have a master's degree)**

**Core Courses - 15 credit hours**

EDAD 5365: Leading Change in Learning Organization

EDAD 5330: Leadership in the Instructional Setting

EDAD 5381: Political and Legal Aspects of Education

EDAD 5383: The Principalship

EDAD 5384: Resource Management in Education

**Practicum Courses - 6 credit hours**

EDAD 5389: Administrative Practicum

EDAD 5399: Capstone Practicum

**Certification Total: 21 credit hours**

**Superintendent Certificate**

**Core Courses - 12 credit hours**

EDAD 6373: The Superintendency

EDAD 6371: Administration of Staff, Personnel, and Advanced School Law

EDAD 6378: Advanced Curriculum and Program Assessment

EDAD 6374: Advanced School Business Administration

**Practicum Courses - 3 credit hours**

EDAD 6279: Superintendent Practicum I

EDAD 6179: Superintendent Practicum II

**Certification Total: 15 credit hours**

Refer to Department Guidebook or advisors for sequence of courses.

**Coursework and Degree Completion Requirements**

The Department of Educational Leadership and Policy Studies offers two routes to earn the Master of Education in Educational Administration (M.Ed.) and Principal Certification: the self-paced program, and several cohort programs (i.e. groups of candidates following the same sequence of courses). The Department also offers courses for candidates seeking Superintendent Certification.

**Coursework and completion requirements**

- Coursework that is more than six years old at the time of graduation or teacher/administrator certification program completion cannot be used toward meeting the requirements for a master's degree or graduate-level certification.
- Master's degree and graduate level certificate programs must be completed within six years (time in military service excluded) from initial registration in the Office of Graduate Studies.
- Appropriate state exams and application to the State Board for Educator Certification for a standard certificate must be made within six months of completion of residency/practicum/program. If a candidate allows the six month period to go by without passing all state exams and applying for certification, additional coursework and/or state exams will be required.
- All transfer credits must be approved by the Faculty Advisor.
- Each candidate in the College of Education and Health Professions of UT Arlington will be evaluated on **professional dispositions** by faculty and staff. These dispositions have been identified as essential for a highly-qualified professional. Instructors and program directors will work with candidates rated as "unacceptable" in one or more stated criteria. The candidate will have an opportunity to develop a plan to remediate any digressions.



## Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies

The Ph.D. degree is designed for candidates who seek to enter careers in research, institutional assessment, policy analysis, institutional leadership, or the professoriate. The program challenges the conventional wisdom that higher education and K-12 education are different worlds by bringing together scholars and students from all levels of education to work and study together. Particularly, the program focuses on narrowing achievement gaps by studying and creating efficacious transitions within the educational experience. Working from the premise that all people can learn at high levels, the program includes the study of the systemic barriers at all levels of education that prevent so many children, adolescents, and young adults from being as successful as they can possibly be.

In addition to becoming experts in their particular area of inquiry, graduates will have a broad foundation in the study of educational leadership and policy at all levels. Students in the Ph.D. program will be part of a cohort throughout their coursework.

### Admission Requirements - Ph.D. Program

A select number of qualified applicants are admitted each session to the cohort-based program. Each cohort begins coursework during the fall semester. Specific guidelines for applying to this program are found on the departmental website. Admission into this program is very competitive. The departmental admissions committee considers prior educational experiences, prior work experiences, GRE scores, writing samples, and professional references. Finalists may be invited to campus to interview with the committee.

In addition to the general Office of Graduate Studies admission requirements, applicants must meet the following requirements for unconditional admission.

- Master's degree in education or other field appropriate for the doctorate in Educational Leadership and Policy Studies
- Grade point minimum average of 3.5 out of a possible 4.0 from the master's degree
- Successful applicants for unconditional admission are expected to present a minimum of two of the following three Graduate Record Examination (GRE) scores: (1) verbal minimum score of 153, (2) quantitative score of 144, and (3) written analytical minimum score of 4. For exams taken before August 1, 2011, a minimum of two of the three scores are required: (1) verbal minimum score of 500, (2) quantitative minimum score of 500, and (3) written analytical minimum score of 4.
- Applicants who do not meet the minimum score requirement for a standardized test will be considered for probationary admission status when other factors are taken into account in a holistic review.
- A minimum score of 550 on the Test of English As a Foreign Language (TOEFL) for applicants whose native language is not English
- At least three years of documented experience in a work environment in which the primary professional responsibility at any level has been education (e.g., teaching, administration, curriculum development, professional development, post secondary education, government or private industry settings)
- Admission is very competitive. Meeting admission standards does not guarantee admission to the program.
- Applicants who have been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons may be denied admission or readmission to an educator preparation program in the College of Education and Health Professions.

### Required Courses (51 hours)

#### 1. Research Methods Core (12 hours)

EDAD 6304: K-16 Quantitative Research Design & Methodology

EDAD 6308: K-16 Qualitative Research Design & Methodology

EDAD 6310: Statistical Methods  
EDAD 6315: Advanced Statistical Methods  
EDAD 6318: Advanced Qualitative Research

**2. Foundations Core (3 hours)**

EDAD 6320: K-16 Philosophy & History Policy Research

**3. Policy Research Core (9 hours)**

EDAD 6325: K-16 Policy Analysis Research  
EDAD 6330: K-16 Legal Policy Research  
EDAD 6335: K-16 Accountability Policy Research

**4. Leadership Research Core (9 hours)**

EDAD 6340: K-16 Organizational Theory Research  
EDAD 6360: K-16 Leadership Theory  
EDAD 6365: K-16 Leading Learning Organizations Research

**5. Research Practicum (6 hours)**

EDAD 6380: K-16 Research Practicum I  
EDAD 6385: K-16 Research Practicum II

**6. Comprehensive Examination (0 hours)**

EDAD 6098: K-16 Comprehensive Examination

**7. Dissertation (9 semester credit hours minimum) selected from:**

EDAD 6399: K-16 Dissertation  
EDAD 6699: K-16 Dissertation

**Elective Courses (15 hours)**

**1. Topical Courses (3 hours)**

EDAD 6390: Selected Topics in K-16 Educational Leadership Research  
or  
EDAD 6392: Selected Topics in K-16 Educational Policy Research

**2. Approved Electives (12 hours)**

**Written and Oral Comprehensive Examinations**

To be elevated to candidacy for the Ph.D., students must successfully pass written and oral comprehensive examinations.

**Dissertation**

Students elevated to candidacy for the Ph.D. may register for the dissertation. The dissertation is the culmination of the Ph.D. program and represents a distinct contribution to the field of knowledge. A dissertation defense is required.

## EDAD Courses

### EDAD5190 – SELECTED TOPICS IN EDUCATION

1 Lecture Hour · 0 Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### EDAD5191 – INDEPENDENT RESEARCH

1 Lecture Hour · 0 Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDAD5199 – PROBATIONARY CERTIFICATION INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

This course provides mentoring and supervision to UTA Educational Leadership and Policy Studies students employed as assistant principals or principals while on a Probationary Certificate and not enrolled in either EDAD 5389 or EDAD 5399. Individuals must reenroll in EDAD 5199 while on probation, which is initially issued for one calendar year.

### **EDAD5290 – SELECTED TOPICS IN EDUCATION**

**2** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDAD5291 – INDEPENDENT RESEARCH**

**2** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDAD5302 – EDUCATIONAL TECHNOLOGY PLANNING**

**3** Lecture Hours · **0** Lab Hours

This course is designed to help prepare future educational administrators in assessing, revising, or developing a technology plan for their school, district, or campus. Students will explore the overall concepts of technology, new applications of technology, and how they apply to educational standards, such as the National Educational Technology Standards for Teachers (NETS-T) and the Technology Standards for School Administrators (TSSA).

### **EDAD5303 – TEACHER LEADERSHIP FOR SCHOOL IMPROVEMENT**

**3** Lecture Hours · **0** Lab Hours

Examine formal/informal leadership in schools emphasizing the roles and contributions of teachers as leaders of instructional improvement at the classroom and school levels. Study organizational dynamics and school culture from theoretical and practical perspectives for improving teaching and learning. Develop leadership strategies for shaping professional learning communities.

### **EDAD5304 – DATA-DRIVEN ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Examine the impact of national and state-level education standards on curriculum and instruction. Examine the structure and uses of both standardized and informal assessments. Examine methods for using assessment data to design differentiated instruction that meets varying student needs.

### **EDAD5305 – CURRICULUM DESIGN, IMPLEMENTATION, AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation. Emphasis on current trends in the content areas.

### **EDAD5306 – COACHING AND CONSULTATION SKILLS**

**3** Lecture Hours · **0** Lab Hours

Examine various methods of coaching at the individual teacher, grade-level or subject-area team, and whole-school levels. Includes in-class instructional demonstrations, teacher observations and providing feedback, coaching through team meetings, and providing whole-school professional development. Also effective ways of including school administrators in instructional improvement.

### **EDAD5307 – TEACHER LEADERSHIP POLICY TRENDS AND ISSUES**

**3** Lecture Hours · **0** Lab Hours

Examines current national and state-level trends and policies in teacher leadership. Reviews research on the effects of various models of teacher leadership on instructional improvement.

### **EDAD5309 – ADVANCED INSTRUCTIONAL STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

A study of advanced models of teaching, including concept attainment, inductive thinking, inquiry, cognitive growth, non-directive group investigation, laboratory training, simulation and the training model. Research in teacher effectiveness and demonstration of various models will be required.

### **EDAD5315 – RESEARCH PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Examination of basic concepts and procedures necessary for empirical research investigations within classroom contexts, experimental design, data collection and interpretation, and statistical analysis.

### **EDAD5321 – EDUCATIONAL RES**

**3** Lecture Hours · **0** Lab Hours

### **EDAD5322 – EDUCATIONAL RESEARCH AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

An overview of basic concepts and procedures necessary for analyzing, designing, and conducting quantitative and qualitative educational studies. Topics include familiarization with educational journals, associations, funding agencies, accreditation procedures, program evaluation, sampling procedures, data collection, and statistical analyses.

### **EDAD5330 – LEADERSHIP IN THE INSTRUCTIONAL SETTING**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement.

### **EDAD5350 – AMERICAN COLLEGE STUDENT**

**3** Lecture Hours · **0** Lab Hours

The purpose of the course is to explore and understand the nature, culture, and development of the American College Student. The course focuses on examining a range of development theories that offer insight into the processes of student learning, growth, and development during the college years.

### **EDAD5351 – HIGHER EDUCATION ADMINISTRATION AND STUDENT AFFAIRS**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to the organization, management, and philosophy of higher education administration and student affairs at post-secondary institutions. It explores the range of services and organizations associated with the wide-range of positions that exist in student and academic affairs and helps students gain a better understanding of the potential career opportunities that await them after graduation.

### **EDAD5352 – HIGHER EDUCATION LAW**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to provide students with the fundamental cases of higher education law for administrators. Topics of this course may include the legal structure of higher education, separation of church and state, religion, academic freedom, employment and tenure, due process, computer-related legal issues, copyright, students' rights of speech and expression, search and seizure, desegregation, tort

liability, contracts and collective bargaining.

### **EDAD5353 – HIGHER EDUCATION FINANCE**

**3** Lecture Hours · **0** Lab Hours

This course will provide knowledge of the theoretical basis for use of tax funds for education, student fees and tuition, state methods for financing, planning, cost benefit, budgeting, federal role, capital outlay, and the relationships between educational objectives and resource allocations.

### **EDAD5354 – THE AMERICAN COMMUNITY COLLEGE**

**3** Lecture Hours · **0** Lab Hours

This course will provide students with the philosophical and historical foundations of the American community college system. Students will explore current issues including, but not limited to, the evolution of the community college baccalaureate, principles of accreditation, institutional effectiveness, workforce development, and federal oversight of community colleges.

### **EDAD5355 – HIGHER EDUCATION CURRICULUM**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation in higher education settings. Emphasis will be on current trends in the content areas.

### **EDAD5356 – HISTORY, PRINCIPLES, AND PHILOSOPHY OF HIGHER EDUCATION ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This course is for current and prospective faculty, administrators, and staff seeking to learn about the American higher education system. The topics addressed include the history, recent developments, and strategies for future management and administration, finance, organization, governance, and the mission and role of higher education in American society.

### **EDAD5357 – HIGHER EDUCATION TRENDS AND ISSUES**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to key issues affecting higher education today. Through diverse and critical readings, the students explore issues such as access and equity, affirmative action, faculty, academic freedom, college costs, and strategic change.

### **EDAD5360 – LEADERSHIP THEORY**

**3** Lecture Hours · **0** Lab Hours

Leadership theories and the practice of leadership serve to focus this course designed to prompt self awareness as a school leader.

### **EDAD5363 – ADVANCED EDUCATIONAL RESEARCH**

**3** Lecture Hours · **0** Lab Hours

An in-depth coverage of selected topics in the design of research and the collection and analysis of data. Topics include multivariate analyses, experimental and quasi-experimental designs, development and selection of data collection instruments, focus group interviewing, observational research, the delphi method, and interpretive analysis.

### **EDAD5365 – LEADING LEARNING ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

The change process in educational settings serves to focus this course. Moving along the continuum of change theories, the planning, adoption, implementation and institutionalization of change are explored across public school and post-secondary learning organizations.

### **EDAD5376 – EDUCATIONAL GOVERNANCE**

**3** Lecture Hours · **0** Lab Hours

Focus on the appointed and elected entities and bureaucracies that determine and implement policy in public education.

### **EDAD5377 – CONTEMPORARY ISSUES IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An exploration of selected controversial issues in contemporary education. Symposium/seminar/lecture format.

### **EDAD5379 – SUPERINTENDENCY INTERNSHIP**

**0** Lecture Hours · **3** Lab Hours

Provides experiences in the various roles and responsibilities of a superintendent of schools under the direction of a school district mentor and a university supervisor. An internship project will be developed in consultation with public school and university personnel.

### **EDAD5380 – DIVERSITY AND EQUITY IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Effective leadership, instruction, and management strategies for work in diverse educational settings. Designed to provide increased self-awareness and insight into issues of diversity and equity such as culture, ethnicity, exceptionality, gender, language, and socioeconomic status. Demographic issues along with urban and suburban educational settings will also be addressed.

### **EDAD5381 – GOVERNANCE, POLITICAL AND LEGAL ASPECTS OF EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Focus on the legal foundation of public education, political theory, and application of political skills in working with school personnel, students, parents, and community organizations. The role of the law, court rulings, and the politics of school governance at the federal, state, and local levels will be addressed.

### **EDAD5382 – FOUNDATIONS OF EDUCATIONAL ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Will address the various aspects of instructional leadership roles and responsibilities of central office as well as building level administrators and supervisors. Topics included will be history of educational administration, educational philosophy, the global understanding of administrative roles in urban and rural settings, and professional organizations, as well as an overview of educational reforms, site-based management, governance, instructional management, evaluation, exchanging ideas, making changes, coaching beginning teachers, mentoring of teachers and peers, and a diverse community.

### **EDAD5383 – THE PRINCIPALSHIP**

**3** Lecture Hours · **0** Lab Hours

The Principalship will address the role of the campus leader in the leadership, organization and administration of schools. The importance of campus culture, climate, vision and ethics will be stressed throughout standards-based instruction, case studies, developmental activities, readings, reflections and field experiences. The importance of appropriate principal induction will be stressed along with the concepts of the principal as scholar-practitioner and proactive leader. An emphasis will be placed on continuous school improvement and a commitment to professional development.

### **EDAD5384 – RESOURCE MANAGEMENT IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

School finance, as well as auxiliary areas of resource management, will be addressed. The emphasis will be on the use of technology, alternative models of financing and budgeting, and sources of revenue from the federal, state, and local levels as well as from private sources. The course is designed to assist administrators in developing an understanding of the functions, operation, and evaluation of auxiliary

services which support the educational program.

### **EDAD5388 – EDUCATIONAL POLICY ISSUES IN THE PUBLIC SCHOOLS**

**3** Lecture Hours · **0** Lab Hours

Examination of positions on policy issues of importance in education.

### **EDAD5389 – ADMINISTRATIVE PRACTICUM**

**1** Lecture Hour · **15** Lab Hours

Designed to provide prospective educational administrators job-related experiences under supervision in an appropriate educational setting. An approved professional study is designed in relationship to the intern's interest and past experiences. Can be repeated for credit with approval of advisor.

### **EDAD5390 – SELECTED TOPICS IN EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An examination of different topics related to education. This seminar may be repeated for credit as the topic changes.

### **EDAD5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

### **EDAD5395 – FUTURISTIC LEADERSHIP ROLES IN SCHOOL ADMINISTRATION**

**5** Lecture Hours · **2** Lab Hours

Concepts and skills to prepare educational leaders for learner-centered schools and to anticipate and foster the professional development of all staff and parents in the learning community.

### **EDAD5399 – CAPSTONE PRACTICUM IN EDUCATIONAL LEADERSHIP AND POLICY STUDIES**

**1** Lecture Hour · **15** Lab Hours

The course focus will be on collaborative inquiry and action research in the individual classroom, team, school, and/or professional learning community. Each student will identify, research, design and initiate addressing a real problem at their work site. Students will leave this course and graduate from the program with a research presentation as part of their informal professional portfolio. Successful completion of the Capstone Internship will fulfill the comprehensive examination requirements for the graduate degree and/or certification. Requirements of EDAD 5399 will include, but not be limited to, those collaboratively established by University faculty and school administrative personnel.

### **EDAD6179 – SUPERINTENDENCY PRACTICUM**

**0** Lecture Hours · **1** Lab Hour

Provides experiences in the various roles and responsibilities of a superintendent of schools under the direction of a school district mentor and a university supervisor. An internship project will be developed in consultation with public school and university personnel.

### **EDAD6279 – SUPERINTENDENCY PRACTICUM**

**0** Lecture Hours · **2** Lab Hours

Provides experiences in the various roles and responsibilities of a superintendent of schools under the direction of a school district mentor and a university supervisor. An internship project will be developed in consultation with public school and university personnel. Prerequisite: permission of advisor.



## **EDAD6304 – K-16 QUANTITATIVE RESEARCH DESIGN & METHODOLOGY**

**3** Lecture Hours · **0** Lab Hours

Advanced course that covers the logic of research methods and design with an emphasis on empirical and other quantitative methods, including designing, conducting, and analyzing research from multiple paradigms. Emphasis will be placed on the steps involved in the administration of a research project including literature review, methodology, data collection and analysis, and presentation and publication in multiple media. State-of-the-art technology will be utilized.

## **EDAD6308 – QUALITATIVE RESEARCH DESIGN & METHODOLOGY**

**3** Lecture Hours · **0** Lab Hours

Research processes including developing interview questions, interviewing, coding/analyzing, interpreting data, theorizing, and reporting results, with participant observation as needed. Special focus on methods available to triangulate/verify data in order to confirm or achieve convergent validity. Establishing appropriate safeguards to ensure that findings are drawn from the data.

## **EDAD6310 – STATISTICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Statistical applications that emphasize sampling theory, normal, t, and F distributions, hypothesis tests, types of errors, power, analysis of variance for designs with one or more levels of classification, random effects and mixed models, comparisons among means, randomized block designs, designs with repeated measures including split-plot designs, zero-order correlation, and simple linear regression. More advanced principles of parametric and non-parametric statistics will also be emphasized. State-of-the-art technology will be utilized.

## **EDAD6315 – ADVANCED STATISTICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Review of correlation topics including zero-order, part and partial correlation, two variable linear regression theory, standard error of estimate, coefficient of determination, test for linearity of regression, relation of correlation ratio to analysis of variance, multiple correlation, point-biserial correlation, phi coefficient, tetrachoric correlation, canonical correlation, rank correlation, Fisher's Z and significance test for r, and effect size. Fundamentals of multiple regression including relationship to analysis of variance, and analysis of covariance. General introduction to factor analysis models, multiple analysis of variance, multiple analysis of covariance, and meta-analysis. Applicability to K-16 studies.

## **EDAD6318 – ADVANCED QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours

## **EDAD6320 – K-16 PHILOSOPHY & HISTORY POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Analysis of the roles of history, philosophy, culture, and values in shaping educational policy. Topics include the Greek Academies, the Medieval Universities, Progressivism, Neo-Conservatism, and Postmodern perspectives, as necessary antecedents to the K-16 movement. Detailed analysis of the roles, history, philosophy, culture, and values for public school and policy making within institutions of higher education.

## **EDAD6325 – K-16 POLICY ANALYSIS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A study of principles and practices involved in policy analysis research in educational settings.

## **EDAD6330 – K-16 LEGAL POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of the legal underpinnings of public K-16 education with particular emphasis on the United States Constitution. Attention will also be paid to varieties of statutory construction, the role of case law, and the significance of administrative decisions in the K-16 context. Legal implications of synergistic relationships spanning the K-16 context.



### **EDAD6331 – LEADERSHIP IN THE K-12 INSTRUCTIONAL SETTING**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement. For doctoral students only.

### **EDAD6335 – K-16 ACCOUNTABILITY POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A comprehensive course covering the research about and role of outcomes assessment in institutional accountability and accreditation. Addresses the relationship between outcomes assessment and strategic planning. Exploration of outcomes assessment in public schools and institutions of higher education.

### **EDAD6340 – K-16 ORGANIZATIONAL THEORY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

In depth study of theories of organizing , the ways in which they are evidenced in educational organizations and the ways in which they influence leaders and learning.

### **EDAD6345 – K-16 HUMAN RESOURCES LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Human resource needs in educational settings, including faculty and staff recruitment, selection, evaluation, retention, promotion, tenure, grievances, and leadership and personnel development.

### **EDAD6350 – K-16 CURRICULUM LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Foundations, principles, and issues of curriculum, including vertical alignment and the middle college concept. Exploration of curriculum development in both public schools and institutions of higher education. Analysis of the role of articulation agreements.

### **EDAD6351 – HIGHER EDUCATION AND STUDENT AFFAIRS ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to the organization, management, and philosophy of higher education administration and student affairs at post-secondary institutions. It explores the range of services and organizations associated with the wide-range of positions that exist in student and academic affairs and helps students gain a better understanding of the potential career opportunities that await them after graduation. For doctoral students only.

### **EDAD6352 – HIGHER EDUCATION LAW**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to provide students with the fundamental cases of higher education law for administrators. Topics of this course may include the legal structure of higher education, separation of church and state, religion, academic freedom, employment and tenure, due process, computer-related legal issues, copyright, students' rights of speech and expression, search and seizure, desegregation, tort liability, contracts and collective bargaining. For doctoral students only.

### **EDAD6353 – HIGHER EDUCATION FINANCE**

**3** Lecture Hours · **0** Lab Hours

This course will provide knowledge of the theoretical basis for use of tax funds for education, student fees and tuition, state methods for financing, planning, cost benefit, budgeting, federal role, capital outlay, and

the relationships between educational objectives and resource allocations. For doctoral students only.

### **EDAD6354 – AMERICAN COMMUNITY COLLEGE**

**3** Lecture Hours · **0** Lab Hours

This course will provide students with the philosophical and historical foundations of the American community college system. Students will explore current issues including, but not limited to, the evolution of the community college baccalaureate, principles of accreditation, institutional effectiveness, workforce development, and federal oversight of community colleges. For doctoral students only.

### **EDAD6355 – K-16 STUDENT SERVICES LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Analysis of the student services, co-curricular, extracurricular, and auxiliary enterprise functions of both public schools and institutions of higher education. Particular emphasis on the relationship with the institutions' stated curricula, purposes, and institutional missions.

### **EDAD6356 – HISTORY, PRINCIPLES, AND PHILOSOPHY OF HIGHER EDUCATION ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This course is for current and prospective faculty, administrators, and staff seeking to learn about the American higher education system. The topics addressed include the history, recent developments, and strategies for future management and administration, finance, organization, governance, and the mission and role of higher education in American society. For doctoral students only.

### **EDAD6357 – HIGHER EDUCATION TRENDS AND ISSUES**

**3** Lecture Hours · **0** Lab Hours

The course is designed to introduce students to key issues affecting higher education today. Through diverse and critical readings, the students explore issues such as access and equity, affirmative action, faculty, academic freedom, college costs, and strategic change. For doctoral students only.

### **EDAD6358 – AMERICAN COLLEGE STUDENT**

**3** Lecture Hours · **0** Lab Hours

The purpose of the course is to explore and understand the nature, culture, and development of the American College Student. The course focuses on examining a range of development theories that offer insight into the processes of student learning, growth, and development during the college years. For doctoral students only.

### **EDAD6359 – HIGHER EDUCATION CURRICIULUM**

**3** Lecture Hours · **0** Lab Hours

An examination of theory and research in curriculum development, implementation, and evaluation in higher education settings. Emphasis will be on current trends in the content areas. For doctoral students only.

### **EDAD6360 – K-16 LEADERSHIP THEORY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Organizational leader behavior in K-16 settings with reference to interpersonal relationships, hierarchy, management style, and communication. Analysis of both classical and contemporary organizational theories, and their application in K-16 settings.

### **EDAD6365 – K-16 LEADING LEARNING ORGANIZATIONS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Building on organizational and leadership theories and their use in educational organizations, this course focuses on the study of change theory and its uses in leading learning organizations in times of change.

### **EDAD6371 – PERSONNEL & SCHOOL LAW**

**3** Lecture Hours · **0** Lab Hours

Focuses on understanding the relationship between motivation and the management of human resources; articulate the basics of team management and group facilitation; identify proper procedures for recruiting, assignment, and inducting personnel; and recognize the legal requirement for suspension, transfer, reduction in force and dismissal of professional personnel. Prerequisite: permission of advisor.

### **EDAD6373 – THE SUPERINTENDENCY**

**3** Lecture Hours · **0** Lab Hours

This course introduces candidates to the many facets of the superintendency with a focus on the challenges facing the superintendent today. Topics include: exercising collaborative leadership, developing a strong organizational culture, dealing with the politics of education, building strong superintendent-board relations, managing the problems of school reform, and planning. Instruction is problem-oriented and included field-based experiences.

### **EDAD6374 – ADVANCED SCHOOL BUSINESS ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Survey principles of public school finance at the local, state, and federal levels. Examines the school budgeting process, methods of school funds accounting and techniques of school business management. Prerequisite: permission of advisor.

### **EDAD6376 – EDUCATIONAL GOVERNANCE**

**3** Lecture Hours · **0** Lab Hours

Focus on the appointed and elected entities and bureaucracies that determine and implement policy in public education. For doctoral students only.

### **EDAD6378 – ADVANCED CURRICULUM AND PROGRAM ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on the processes of implementing district-wide curriculum, programs, and other innovations in school systems. Topics include: recent research on the implementation of change in curriculum and instruction, trends in education, strategic and contextual planning, program and student assessment and accountability, and national curriculum projects. Prerequisite: permission of advisor.

### **EDAD6380 – K-16 RESEARCH PRACTICUM I**

**10** Lecture Hours · **0** Lab Hours

An In depth research experience that provides an opportunity for participants to work with an experienced faculty researcher on cutting edge K-16-related research. The practicum experience will be personalized to best meet the individual student's needs, aptitudes, and aspirations in the context of the K-16 research arena.

### **EDAD6381 – POLITICAL AND LEGAL ASPECTS OF K-12 EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Focus on the legal foundation of public education, political theory, and application of political skills in working with school personnel, students, parents, and community organizations. The role of the law, Ct rulings, and the politics of school governance at the federal, state, and local levels will be addressed. For doctoral students only.

### **EDAD6383 – THE PRINCIPALSHIP**

**3** Lecture Hours · **0** Lab Hours

Examination of current research on effective instructional organizations and classroom instruction in today's schools, on characteristics of school leadership, and on the role and function of the teacher as instructional leader. Topics include the essential components of instruction, developing instructional-management systems, evaluating student and teacher performance, assisting colleagues to monitor and improve instructional skills, school climate and leadership styles as they impact on school improvement. For

doctoral students only.

### **EDAD6384 – RESOURCE MANAGEMENT IN K-12 EDUCATION**

**3** Lecture Hours · **0** Lab Hours

School finance, as well as auxiliary areas of resource management, will be addressed. The emphasis will be on the use of technology, alternative models of financing and budgeting, and sources of revenue from the federal, state, and local levels as well as from private sources. The course is designed to assist administrators in developing an understanding of the functions, operation, and evaluation of auxiliary services which support the educational program. For doctoral students only.

### **EDAD6385 – K-16 RESEARCH PRACTICUM II**

**10** Lecture Hours · **0** Lab Hours

A research experience in K-16 research that provides an opportunity for participants to experience the process research with an experienced university professional. The experience will be individualized to best meet the student's needs, aptitudes, and aspirations in the context of K-16 research.

### **EDAD6390 – SELECTED TOPICS K-16 EDUCATIONAL LEADERSHIP RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Topics will vary by semester, and may afford students the opportunity for choice within the cohort design. Selected topics courses will provide opportunities for faculty to teach courses in their area of expertise that meet students' needs, aptitudes, and aspirations. Examples of selected topics that may be offered in leadership research include: k-16 student judicial processes, K-16 academic program administration, and K-16 student information management systems. May be repeated for credit with permission of instructor.

### **EDAD6391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for independent study over topic agreed upon between student and instructor. Can be repeated for credit with permission. For doctoral students only.

### **EDAD6392 – SELECTED TOPICS K-16 EDUCATION POLICY RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Topics will vary by semester, and may afford students the opportunity for choice within the cohort design. Selected topics courses will provide opportunities for faculty to teach courses in their area of expertise that meet students' needs, aptitudes, and aspirations. Examples of selected topics that may be offered in leadership research include: K-16 governance, IDEA & ADA, and K-16 articulation. May be repeated for credit with permission of instructor.

### **EDAD6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree, and permission of major professor. Graded P/F.

### **EDAD6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree, and permission of major professor. Graded R/F/P/W.

### **EDAD6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree, and permission of major professor. Graded P/R/F.

## **EDAD7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **EDADIR Courses**

### **EDADIR5391 – INDEPENDENT RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Research for thesis substitute or equivalent over topic agreed upon between student and instructor. Can be repeated for credit with permission.

## **ELED Courses**

### **ELED5309 – TRENDS AND ISSUES IN EARLY CHILDHOOD EDUCATION**

**3** Lecture Hours · **0** Lab Hours

In-depth analysis of current research on issues in Early Childhood Education. Emphasis on the evaluation and impact of historical, political, and social policy; overview of legislation and advocacy on behalf of young children.

### **ELED5312 – EC6: INSTRUCTIONAL STRATEGIES IN SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Study of principles of integration of content in EC-6 classrooms with focus on science concepts and cognitive development. Emphasis on developing dispositions toward scientific inquiry and the use of appropriate objects, materials, activities, and programs to assist in the learning of science concepts.

### **ELED5315 – PRACTICUM**

**2** Lecture Hours · **0** Lab Hours

Practicum in student's teaching area(s). This semester-long experience will help students apply theory and research to practice.

### **ELED5317 – THEORIES OF CHILD DEVELOPMENT AND LEARNING**

**3** Lecture Hours · **0** Lab Hours

Human growth and development, including developmental anomalies, from birth through middle childhood with emphasis on cognitive, social, emotional, and physical growth. Attention is given to current research regarding establishment of learning environments that foster development of the child's self-concept, cognitive competencies, oral language and literacy development, and positive social behaviors including appreciation of diversity among individuals and groups.

### **ELED5318 – FOUNDATIONS IN EC6 EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An overview of historical and philosophical influences and current research in early and elementary education on promoting educational environments that support development of the whole child. Attention is

given to the development and implementation of appropriate EC-6 curricula and programs that extend and integrate learning experiences of children, including the home-school relationship.

### **ELED5319 – EC6 EDUCATION: INSTRUCTIONAL STRATEGIES IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Study of principles of integration of content in EC-6 classrooms with focus on mathematics concepts and cognitive development. Emphasis on developing dispositions toward the use of appropriate objects, materials, activities, and programs to assist in learning of mathematics concepts.

### **ELED5320 – EC6 EDUCATION: INSTRUCTIONAL STRATEGIES IN SOCIAL STUDIES AND THE CREATIVE ARTS**

**3** Lecture Hours · **0** Lab Hours

Study of principles of integration of content in EC-6 classrooms with focus on social studies, the creative arts, and cognitive and socio-emotional development. Emphasis on developing dispositions promoting awareness of self and others, and the study of group dynamics involved in the socialization process in a diverse community. Strategies for enhancing creativity and risk-taking characteristics in EC-6 classrooms.

---

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
    - Curriculum and Instruction
    - Educational Leadership and Policy Studies
    - Kinesiology
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Kinesiology

College of Education and Health Professions

### Chair A Louise Fincher

### Chair David Keller

Web [www.uta.edu/coehp/kinesiology/ms/](http://www.uta.edu/coehp/kinesiology/ms/)

Email [ricard@uta.edu](mailto:ricard@uta.edu)

Phone 817.272.3288

Fax 817.272.3233

**147 Maverick Activities Center**

---

### Degrees / Certificates

#### Master's Degrees

Athletic Training, M.S. Non Thesis

Exercise Science, M.S.

#### Doctoral Degrees

Kinesiology BS to PHD-DB

Kinesiology-PhD

---

### Graduate Faculty

**Robert Brothers**

**Paul Fadel**

**Mark Haykowsky**

**Michael Nelson**

**Zui Pan**

#### Professor

**John Buckwalter**

**A Louise Fincher**

**Barry McKeown**

**Mark Ricard**

#### Associate Professor

**Paul McDonough**

**Larry Nelson**

**Cynthia Trowbridge**

**Judy Wilson**

#### Assistant Professor

**Priscila Cacola**

**Jean Hargreaves**

**David Keller**

**Rhonda Prisby**

**Christopher Ray**

**Jake Resch**

**Assistant Clinical Professor**  
**Paul Krawietz**

---

## Graduate Advisors

### **Robert Brothers**

*Athletic Training, M.S. Non Thesis*  
*Exercise Science, M.S.*  
*Exercise Science, Non-Degree Seeking*  
*Kinesiology BS to PHD-DB*  
*Kinesiology-PhD*

### **David Keller**

*Athletic Training, M.S. Non Thesis*  
*Exercise Science, M.S.*  
*Exercise Science, Non-Degree Seeking*

### **Paul Krawietz**

*Athletic Training, M.S. Non Thesis*

### **Mark Ricard**

*Exercise Science, M.S.*

---

## Department Information

### Courses

# Department Information

## Master of Science in Athletic Training - Mission, Goals, and Outcome Measures

- **Program Mission**

## Admission Requirements

- **Unconditional Admission**
- **Probationary Admission**
- **Retention Criteria**
- **Transfer Policy**
- **Waiver of the Graduate Record Examination**

## Degree Requirements

## Master of Science in Exercise Science - Objective

## Admission Requirements

- **Unconditional Admission**
- **Probationary Admission**
- **Waiver of the Graduate Record Examination**
- **Graduate Assistantships**

## Degree Requirements

For specific information regarding graduate study in the Department of Kinesiology, please contact



the Graduate Advisor at 817.272.3288 or by e-mail at [kinegradcoord@uta.edu](mailto:kinegradcoord@uta.edu).

## Master of Science in Athletic Training - Mission, Goals, and Outcome Measures

### Program Mission:

The mission of The University of Texas at Arlington Master of Science in Athletic Training (MSAT) program is to provide an active learning environment for students to acquire the critical thinking and clinical decision making skills necessary for a successful career in the ever evolving health care system.

The program of study leading to the Master of Athletic Training (MSAT) is designed to accomplish five major goals:

#### Program Goal #1:

To prepare students to pass the Board of Certification, Inc. (BOC) exam.

Outcome measure:

1. Overall BOC passing rates for program graduates.

#### Program Goal #2:

To prepare students to pass the Texas Advisory Board of Athletic Trainers' (TABAT) state licensure exam.

Outcome measure:

1. Overall TABAT passing rates for program graduates.

#### Program Goal #3:

Prepare students to achieve competence and strive for excellence in evidence-based clinical practice.

Outcome measures:

1. Psychomotor skill evaluations
2. Didactic and laboratory final exams
3. Simulated patient assessments
4. Overall clinical performance evaluations

#### Program Goal #4:

To prepare students to recognize the value and importance of promoting the athletic training profession.

Outcome Measures:

1. Percentage of current students who are actively involved in the Maverick Society of Athletic Training Students (MSATS).
2. Percentage of current students who are members of the National Athletic Trainers' Association (NATA) and the Southwest Athletic Trainers' Association (SWATA).
3. Percentage of program alumni who maintain the membership in the NATA, SWATA, and the Texas State Athletic Trainers' Association (TSATA).
4. Percentage of program alumni who are currently involved, or have been involved in the past, in professional service (committees, task forces, volunteer projects, etc.) to the NATA, SWATA, or TSATA.

#### Program Goal #5:

To facilitate students' efforts in locating and securing an athletic training job or placement in a graduate school.

Outcome measure:

1. Annual student placement rates.

## Admission Requirements

### Unconditional Admission

- Bachelor's Degree (preferably in Kinesiology, Exercise Science or related field).
- Admission to The University of Texas at Arlington.
- Submission of GRE scores (the following scores are preferred but not required:  
  
Verbal - 150 [450], Math 141 [450].
- Undergraduate GPA of 3.0 or 3.0 GPA during the last 60 hours of undergraduate work.
- Completion of Graduate Athletic Training Application.
- Interview with MSAT Admissions Committee.
- Completed Technical Standards Forms.
- Physical Exam and Immunization Records (including Hepatitis B)
- Current Health Care Provider CPR Certification (AHA).3 MSAT reference forms on file.
- Submit documentation of 25 hours of clinical observation in an athletic training setting.
- Meet application deadline of February 1st (or early deadline of December 1st for following summer admission).
- International applicants must meet the Office of Graduate Studies minimum scores for admission for the TOEFL, TSE, TOEFL iBT, and IELTS test: A score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section are required.

### Probationary Admission

Applicants failing to meet the unconditional admission criteria may be considered for probationary admission, in which case the following additional criteria will also be considered by the MSAT Admissions Committee:

- Professionally relevant experience.
- A sample of technical writing may be requested.
- Maintain a 3.0 GPA in the first two long (Fall and Spring) semesters of enrollment in the graduate program.

Required Prerequisites (grade of C or better)

- Care and Prevention of Injuries
- Anatomy and Physiology I and II
- Kinesiology/Biomechanics
- Physiology of Exercise
- Sports Nutrition

Preferred Prerequisites (grade of C or better)

- Physics I
- Chemistry I
- Medical Terminology

## Retention Criteria

MSAT students' academic and clinical progress will be closely monitored each semester by the MSAT Program Director and the MSAT Clinical Education Coordinator. In order to remain in the MSAT program, students must:

1. Maintain a cumulative GPA of 3.0 or higher.
2. Maintain a 3.0 GPA or higher in athletic training core courses.
3. Adhere to the NATA Code of Ethics and to the MSAT Policies and Procedure Manual.

\* Students who fail to meet the retention criteria will be placed on probation in the MSAT program for one semester. If standards are not met by the end of the probationary period, the student will be dismissed from the program. Students who earn a grade of C or lower in any required course must repeat that course and earn a grade of B or higher in order to remain in the program. Failure to repeat the course, or earn a grade of B or better, will result in dismissal from the program.

## Transfer Policy

Students may transfer up to six hours of elective graduate coursework. No transfer credit will be awarded for any of the athletic training core courses.

## Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates with a degree in Kinesiology or related fields (such as Biology, Chemistry, Mathematics, Nursing, Computer Science, or Engineering) may qualify for a waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.
2. The student's UT Arlington grade-point average must equal or exceed 3.0 in the following calculations:
  - As calculated for admission by the Office of Graduate Studies;
  - Overall;
  - In the major field; and
  - In all upper-division work.

Applicants qualifying for waiver of GRE who do not qualify for advance admission, must comply with all other requirements for admission, i.e., submitting the application, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waive must be recommended by the Graduate Advisor at the time of admission.

## Degree Requirements

All students accepted into the Master of Science in Athletic Training Program will complete 52 hours of coursework. Students then have the option of selecting 6-9 hours of electives.

### Required Coursework (46 hours)

The following courses will be required for completion of the MSAT degree program.  
Prefix and Number Required Courses SCH

KINE 5120 Clinical Experience I  
 KINE 5130 Clinical Experience II  
 KINE 5140 Clinical Experience III  
 KINE 5150 Clinical Experience IV  
 KINE 5160 Clinical Experience V  
 KINE 5220 Preventative Techniques in Athletic Training  
 KINE 5300 Research Methods in Kinesiology  
 KINE 5305 Applied Statistical Principles in Kinesiology  
 KINE 5329 Strength and Conditioning  
 KINE 5333 Health Care Administration  
 KINE 5334 Seminar in Athletic Training  
 KINE 5420 Concepts in Athletic Training  
 KINE 5430 Orthopedic Assessment I  
 KINE 5431 Orthopedic Assessment II  
 KINE 5432 Pathophysiology and Pharmacology  
 KINE 5433 Therapeutic Interventions I  
 KINE 5434 Therapeutic Interventions II

The elective courses listed below are intended to provide MSAT students the opportunity to gain advanced knowledge in select areas related to athletic training. The independent research courses (KINE 5196, 5296, and 5396) are specifically designed to provide students with additional research experiences, particularly those students who may be interested in pursuing a doctoral degree.

#### **Prefix and Number Prescribed Elective Courses**

(Students will choose 6 hrs from the following):

KINE 5196 Research in Athletic Training  
 KINE 5197 Internship in Athletic Training  
 KINE 5296 Research in Athletic Training  
 KINE 5297 Internship in Athletic Training  
 KINE 5396 Research in Athletic Training  
 KINE 5397 Internship in Athletic Training  
 KINE 5320 Advanced Physiology of Exercise  
 KINE 5328 Neuromuscular Physiology of Exercise  
 KINE 5331 Obesity and Weight Management  
 KINE 5345 Sport Nutrition  
 KINE 5350 Applied Biomechanics

### **Master of Science in Exercise Science - Objective**

The program of study leading to the Master of Science (M.S.) in Exercise Science is designed to accomplish two major objectives:

1. To provide students with the academic and research skills needed for doctoral study in kinesiology, exercise science, physiology of exercise, postural control, athletic training or biomechanics.
2. To prepare students for employment in clinically-oriented environments that place an emphasis on research-based practice such as cardiac rehabilitation, strength and conditioning or sports medicine.

Current departmental faculty members have been academically trained in, and are actively publishing in the areas of physiology of exercise, postural control, athletic training, biomechanics, cardiovascular physiology, physical education (pedagogy), pulmonary physiology, motor-learning, and the general areas of allied health sciences. The ongoing research in these areas provides the primary focus for the M.S. program. Program graduates will be well prepared to work as researchers in laboratories and to enroll in doctoral programs in these content areas.

Students are encouraged to present their research at state and national meetings of the following organizations: American College of Sports Medicine (ACSM), National Athletic Trainers'

Association (NATA), National Strength and Conditioning Association (NSCA). The M.S. degree, combined with supervised clinical experience, will assist students in their preparation for national certification exams.

## Admission Requirements

### Unconditional Admission

1. Minimum GRE quantitative score of 144 (500 on old scale) and verbal score of 153 (500 on old scale).
2. 3.0 GPA for the degree and/or 3.0 GPA during the last 60 hours of undergraduate work.
3. Undergraduate and/or graduate course work related to kinesiology.
4. 3.0 GPA on all graduate work.
5. 3 letters of reference on file.
6. International applicants must meet the Office of Graduate Studies minimum scores for admission for the TOEFL, TSE, TOEFL iBT, and IELTS test: A score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section are required.
7. To be eligible for a graduate teaching assistantship, international students must submit a TSE score of at least 45, or a score on the Speaking section of the TOEFL iBT of at least 23 or a score of at least 7 on the Speaking section of the IELTS. Alternatively, students who have not taken the TSE, or who have failed to attain a score of 23 on the Speaking section of the TOEFL iBT or a score of 7 on the Speaking section of the IELTS, may achieve a score of at least 45 on the SEA examination administered by the University of Texas at Arlington's Assessment Services Office.

### Probationary Admission

Applicants failing to meet the unconditional admission GRE criteria or having a GPA less than 3.0 may be considered for probationary admission, in which case the following additional criteria will also be considered by the Graduate Studies Committee:

1. Professionally relevant experience
2. A sample of technical writing may be requested

Applicants admitted on probation will be required to maintain a B or better average during their first 9 hours of graduate study. A Graduate Advisor within the Department of Kinesiology will review transcripts of prospective students to determine what prerequisites are needed prior to enrollment in courses within the proposed program. If deficiencies are identified, a pre-program of study designed to prepare the student for graduate course prerequisites will be written and signed by the prospective student and the Graduate Advisor.

Applicants seeking admission to an educator preparation program in the College of Education and Health Professions may be denied admission or readmission to those programs if they have been suspended or expelled from the University of Texas at Arlington or any other university or program for reasons other than academic reasons.

### Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates with a degree in Kinesiology or related fields (such as Biology, Chemistry, Mathematics, Computer Science, or Engineering) may qualify for a waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program

(as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.

2. The student's UT Arlington grade-point average must equal or exceed 3.0 in the following calculations:
  - as calculated for admission by the Office of Graduate Studies;
  - overall;
  - in the major field; and
  - in all upper-division work.

Applicants qualifying for waiver of GRE who do not qualify for advanced admission, must comply with all other requirements for admission, i.e., submitting the application for admission, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waiver must be recommended by the Graduate Advisor at the time of admission.

### Graduate Assistantships

The Department of Kinesiology offers graduate teaching and graduate research assistantships. Assistantships are contingent upon prior acceptance to the Graduate School. Graduate Assistant applicant evaluation begins on February 1 and continues until all positions are filled. Please direct all inquiries to the graduate program director Dr. Mark Ricard at [ricard@uta.edu](mailto:ricard@uta.edu).

### Degree Requirements

All students accepted into the Master of Science in Exercise Science program will complete 36 hours of coursework consisting of 15-18 semester hours in exercise science, which includes completing either KINE 5389 Research Manuscript or KINE 5698 Thesis. Students then have the option of selecting 18-21 hours of electives. Detailed information concerning the plan of work is available on the Department of Kinesiology website: [www.uta.edu/coehp/kinesiology/ms](http://www.uta.edu/coehp/kinesiology/ms).

#### Required Coursework (15-18 hours)

KINE 5300 Research Methods in Kinesiology  
 KINE 5305 Applied Statistical Principles in Kinesiology  
 KINE 5320 Advanced Physiology of Exercise  
 KINE 5323 Motor Learning and Control

#### Choose one of the following

KINE 5389 Research Manuscript Submission  
 KINE 5698 Thesis

#### Elective Coursework (Choose 18 to 21 hours, based on thesis or non-thesis track)

KINE 5322 Metabolism and Exercise Biochemistry  
 KINE 5326 Cardiocirculatory Physiology of Exercise  
 KINE 5327 Pulmonary Physiology of Exercise  
 KINE 5328 Neuromuscular Physiology of Exercise  
 KINE 5329 Strength and Conditioning  
 KINE 5331 Obesity and Weight Management  
 KINE 5345 Sport Nutrition  
 KINE 5350 Applied Biomechanics  
 KINE 5390 Special Topics in Kinesiology  
 KINE 5393 Physiology of Exercise Internship  
 KINE 5394 Research in Kinesiology



Coursework that is more than six years old at the time of graduation or teacher/administrator certification program completion cannot be used toward meeting the requirements for a master's degree or graduate-level certification. Master's degree and graduate-level certification programs must be completed within six years (time in military service excluded) from initial registration in the Graduate School. Appropriate state exams and application to the State Board for Educator Certification for a standard certificate must be made within six months of completion of residency/practicum/program. If a candidate allows the six-month period to go by without passing all state exams and applying for certification, additional coursework and/or exams will be required.

## **KINE Courses**

### **KINE5120 – ATHLETIC TRAINING CLINICAL I**

**3** Lecture Hours · **0** Lab Hours

Clinical experiences performed in an athletic training setting or other health care facility under the supervision of a program approved health care provider.

### **KINE5125 – IMMUNOLOGY**

**1** Lecture Hour · **0** Lab Hours

This course will include a brief review of the immune system and factors that affect immune function with emphasis on the effect of exercise and stress on muscle and overall immune function. The effect of nutrition and over-training on the immune system and associated syndromes/diseases will also be presented.

### **KINE5130 – CLINICAL ATHLETIC TRAINING II**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisites: KINE 5420, KINE 5220, KINE 5120

### **KINE5140 – CLINICAL ATHLETIC TRAINING III**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisite: KINE 5130

### **KINE5150 – CLINICAL ATHLETIC TRAINING IV**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisite: KINE 5140

### **KINE5160 – CLINICAL ATHLETIC TRAINING V**

**12** Lecture Hours · **0** Lab Hours

Clinical experiences in selected health care settings that provide students the opportunity to integrate their knowledge and skills into actual patient care. Emphasis will be placed on the development of clinical decision-making skills. This course requires the completion of 250 hours of clinical experience under the supervision of a program approved clinical preceptor. Prerequisite: KINE 5150

### **KINE5190 – SPECIAL TOPICS IN KINESIOLOGY**

**1 Lecture Hour · 0 Lab Hours**

In-depth study of selected topics in physical education and exercise science. May be repeated when topics vary. Prerequisite: consent of instructor.

### **KINE5191 – INTERNSHIP IN CARDIOPULMONARY REHABILITATION**

**1 Lecture Hour · 0 Lab Hours**

The student will complete 400 internship hours in an approved Cardiopulmonary rehabilitation setting. The student may take two semesters of KINE 5191 at 200 hours each. The student will be involved in patient/client assessment, training, rehabilitation, risk factor identification and lifestyle management services provided for individuals with or at risk for cardiovascular, pulmonary, and metabolic diseases. In addition the student will observe common cardiac surgeries and diagnostic procedures to better understand the pathophysiology and treatment of cardiovascular, pulmonary and metabolic disease.

### **KINE5192 – INTERNSHIP IN GRADED EXERCISE TESTING FOR HIGH RISK POPULATIONS**

**1 Lecture Hour · 0 Lab Hours**

The student will complete 200 hours of graded exercise testing in an approved hospital or outpatient clinical setting which conducts exercise tests for high risk populations, including clients with suspected cardiopulmonary and metabolic diseases. The student will be exposed to noninvasive (echocardiography and graded exercise testing) and invasive methods used to diagnose cardiopulmonary and metabolic disease, including procedures conducted in cath and nuclear testing laboratories.

### **KINE5193 – PHYSIOLOGY OF EXERCISE INTERNSHIP**

**1 Lecture Hour · 0 Lab Hours**

Individualized academic training in an external professional exercise physiology setting (e.g., physical medicine, athletic training, external laboratory, health/fitness facility, professional teams or sports management) under the direct supervision of an exercise science professional.

### **KINE5194 – RESEARCH IN KINESIOLOGY**

**1 Lecture Hour · 0 Lab Hours**

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5195 – INTERNSHIP IN GRADED EXERCISE TESTING FOR HIGH RISK POPULATIONS**

**1 Lecture Hour · 0 Lab Hours**

The student will complete 200 hours of graded exercise testing in an approved hospital or outpatient clinical setting which conducts exercise tests for high risk populations, including clients with suspected cardiopulmonary and metabolic diseases. The student will be exposed to noninvasive (echocardiography and graded exercise testing) and invasive methods used to diagnose cardiopulmonary and metabolic disease, including procedures conducted in cath and nuclear testing laboratories.

### **KINE5198 – THESIS**

**1 Lecture Hour · 0 Lab Hours**

### **KINE5220 – PREVENTATIVE AND ACUTE CARE TECHNIQUES IN ATHLETIC TRAINING**

**1 Lecture Hour · 3 Lab Hours**

Classroom and laboratory experiences designed to provide students with formal instruction and evaluation in the prevention and acute care of activity related injuries and illnesses.

### **KINE5290 – SPECIAL TOPICS IN KINESIOLOGY**

**2 Lecture Hours · 0 Lab Hours**



In-depth study of selected topics in physical education and exercise science. May be repeated when topics vary. Prerequisite: consent of instructor.

### **KINE5291 – INTERNSHIP IN CARDIOPULMONARY REHABILITATION**

1 Lecture Hour · 0 Lab Hours

The student will complete 400 internship hours in an approved Cardiopulmonary rehabilitation setting. The student may take two semesters of KINE 5191 at 200 hours each. The student will be involved in patient/client assessment, training, rehabilitation, risk factor identification and lifestyle management services provided for individuals with or at risk for cardiovascular, pulmonary, and metabolic diseases. In addition the student will observe common cardiac surgeries and diagnostic procedures to better understand the pathophysiology and treatment of cardiovascular, pulmonary and metabolic disease.

### **KINE5292 – SPECIAL TOPICS IN KINESIOLOGY**

2 Lecture Hours · 0 Lab Hours

### **KINE5293 – PHYSIOLOGY OF EXERCISE INTERNSHIP**

2 Lecture Hours · 0 Lab Hours

Individualized academic training in an external professional exercise physiology setting (e.g., physical medicine, athletic training, external laboratory, health/fitness facility, professional teams or sports management) under the direct supervision of an exercise science professional.

### **KINE5294 – RESEARCH IN KINESIOLOGY**

2 Lecture Hours · 0 Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5298 – THESIS**

2 Lecture Hours · 0 Lab Hours

### **KINE5300 – RESEARCH METHODS IN KINESIOLOGY**

3 Lecture Hours · 0 Lab Hours

This course is an overview of concepts and procedures necessary for designing, conducting, and analyzing research in Kinesiology from multiple research paradigms. The course will focus on the steps involved in the administration of a research project, including literature review, design, data collection and analysis.

### **KINE5305 – APPLIED STATISTICAL PRINCIPLES IN KINESIOLOGY**

3 Lecture Hours · 0 Lab Hours

The course covers descriptive statistics, elementary probability, one- and two-population mean and variance comparisons, ANOVA, simple linear regression, and correlations. In addition, more advanced principles in parametric and non-parametric statistics will be emphasized.

### **KINE5320 – ADVANCED PHYSIOLOGY OF EXERCISE**

2 Lecture Hours · 2 Lab Hours

Lecture and laboratory sessions are designed to investigate concepts of energy metabolism, lactate production and accumulation, energy expenditure, excess post exercise oxygen consumption, cardiovascular and temperature regulation, neuromuscular control, aerobic and anaerobic adaptations and ergonomics.

### **KINE5322 – METABOLISM & EXERCISE BIOCHEMISTRY**

3 Lecture Hours · 0 Lab Hours

This course will address the regulation of exercise metabolism as well as the distinct biochemical pathways through which energy transduction occurs. This will allow the student to appreciate not only the end result

of metabolism, ultimately the production and maintenance of cellular ATP levels, but also the pathways that biological machines use to achieve ATP homeostasis. Calorimetry, respiratory exchange ratio, and substrate utilization during exercise will be assessed as part of the laboratory section of this course

### **KINE5323 – MOTOR CONTROL AND LEARNING**

**3** Lecture Hours · **0** Lab Hours

This course advances on fundamental concepts of motor behavior and performance combining theoretical principles to a variety of realistic contexts to provide the basis of skilled behavior. Contemporary research in human motor behavior models is used to identify effective solutions to practical problems and to spark ideas for optimizing development, learning, and control of motor skills.

### **KINE5326 – CARDIOCIRCULATORY PHYSIOLOGY OF EXERCISE**

**2** Lecture Hours · **3** Lab Hours

The structure and function of the cardiovascular and circulatory system will be studied, as well as, cardiac control, the cardiac cycle, cardiac output, hemodynamics, vascular resistance, arterial-venous oxygen difference and oxygen delivery and consumption. Heat production and thermal control during exercise will also be addressed in lecture and laboratory sessions.

### **KINE5327 – PULMONARY PHYSIOLOGY OF EXERCISE**

**3** Lecture Hours · **0** Lab Hours

Examines the structure and function of the pulmonary system including mechanics of breathing, lung capacity tests, pulmonary circulation, lung diseases, gas exchange, ventilation, diffusing capacity, acid/base balance, neural and chemical regulation of breathing, and blood flow with respect to rest and exercise values in healthy and diseased populations. Prerequisite: KINE 5320.

### **KINE5328 – NEUROMUSCULAR PHYSIOLOGY OF EXERCISE**

**2** Lecture Hours · **3** Lab Hours

The structure and function of muscle, including the motor unit, control and integration, central and peripheral modifiers of neuromuscular control and biochemical characteristics of fibers will be studied. These concepts will also be applied to concepts in strength and power development.

### **KINE5329 – STRENGTH & CONDITIONING**

**3** Lecture Hours · **0** Lab Hours

The course covers the physiology and biomechanics of strength training and conditioning. Additional topics include: testing and evaluation of athletes, resistance training techniques, training program design, and organization administration of a strength training facility. This course is designed to prepare students to take the CSCS certification examination. Prerequisite: current CPR certification, KINE 3300, KINE 3301, KINE 3315, or permission of the instructor.

### **KINE5331 – OBESITY & WEIGHT MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course is a review of the scientific literature on the causes and consequences of obesity. Topics include techniques for assessing body composition, factors promoting fat metabolism and deposition, traditional and non-traditional weight-loss programs, and adherence to weight-loss programs. Offered as KINE 4331 and KINE 5331. Credit will be granted only once. Prerequisite: KINE 5320 or permission of department.

### **KINE5333 – HEALTH CARE ADMINISTRATION**

**2** Lecture Hours · **1** Lab Hour

A study of the administrative issues and management theories that may be encountered in overseeing an athletic training/sports medicine program. Special emphasis is placed on the practical application of concepts related to legal liability, facility design and maintenance, financial and budget management, common health insurance models, insurance contract negotiation, strategic planning as a means to assess and promote organizational improvement, the impact of organizational structure on the daily operations of a healthcare facility, components of developing and implementing a basic business plan, medical record and documentation systems, federal and state infection control regulations and guidelines, risk management

plan development, emergency action planning, and general day to day operations. Prerequisites: KINE 5431, KINE 5434, KINE 5432

### **KINE5334 – SEMINAR IN ATHLETIC TRAINING**

**3** Lecture Hours · **0** Lab Hours

Synthesis of theories and concepts in athletic training. Review of the competencies and proficiencies in athletic training with special emphasis on professional development and the refinement of clinical decision-making.

### **KINE5335 – GRADED EXERCISE TESTING AND PRESCRIPTION**

**2** Lecture Hours · **3** Lab Hours

The knowledge and skills necessary for assessment of health history and appraisal, blood pressure, electrocardiogram, cardiovascular fitness and function will be acquired in lecture and laboratory sessions. Various test modalities and protocols will be discussed for health and diseased populations.

### **KINE5336 – ECG INTERPRETATION**

**3** Lecture Hours · **0** Lab Hours

Principles of electrocardiography will be explored, with emphasis on interpretation of resting and stress ECGs. Interpretation of dynamic rhythm strips will prepare students to work in cardiac rehabilitation and other allied health professions.

### **KINE5338 – EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS**

**2** Lecture Hours · **3** Lab Hours

This course will discuss the pathophysiology of cardiovascular, metabolic and pulmonary diseases. Methods of exercise prescription and issues of concern will also be presented for these populations, as well as, low back pain, pregnancy, osteoporosis, cancer, anorexia and bulimia, children, adolescents, teens, older adults, fibromyalgia, multiple sclerosis, and chronic fatigue syndrome. Practical application of leadership skills and hands-on instruction will be addressed in the laboratory portion of this course.

### **KINE5345 – SPORT NUTRITION**

**3** Lecture Hours · **0** Lab Hours

Overview of nutrients necessary for healthful living and nutritional impact on reducing risk factors of lifestyle diseases. Application of nutrient recommendations for sports and exercise activities, including fluid replacement, sports supplements, and ergogenic aids. In addition, students will construct plans for dietary intake of athletes during training and competition for both endurance and resistance training. Offered as KINE 5345 and KINE 3301. Credit will be granted only once.

### **KINE5350 – APPLIED BIOMECHANICS**

**3** Lecture Hours · **0** Lab Hours

Application of Newtonian mechanics to human movement analysis. Biomechanical models using three-dimensional video and force plate data will be used to analyze human movement.

### **KINE5389 – RESEARCH MANUSCRIPT SUBMISSION**

**3** Lecture Hours · **0** Lab Hours

The student will collect scientific data in the Physiology of Exercise laboratories or in a work-related environment under the supervision of a faculty member. The student will analyze the data, write a manuscript, and submit a manuscript for publication in a peer-reviewed journal. This course must be taken in the final semester of graduate work and requires approval of the Graduate Advisor.

### **KINE5390 – SPECIAL TOPICS IN KINESIOLOGY**

**3** Lecture Hours · **0** Lab Hours

In-depth study of selected topics in physical education and exercise science. May be repeated when topics vary. Prerequisite: consent of instructor.

### **KINE5392 – SPECIAL TOPICS IN KINESIOLOGY**

**3** Lecture Hours · **0** Lab Hours

### **KINE5393 – PHYSIOLOGY OF EXERCISE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Individualized academic training in an external professional exercise physiology setting(e.g., physical medicine, athletic training, external laboratory, health/fitness facility, professional teams or sports management) under the direct supervision of an exercise science professional.

### **KINE5394 – RESEARCH IN KINESIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5396 – RESEARCH IN ATHLETIC TRAINING**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Prerequisite: consent of the instructor.

### **KINE5397 – INTERNSHIP IN ATHLETIC TRAINING**

**3** Lecture Hours · **0** Lab Hours

Individualized clinical experience in an external athletic training or other medical setting (e.g., physicianAs office, rehabilitation clinic, professional sports teams) under the direct supervision of a health care professional.

### **KINE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **KINE5420 – CONCEPTS IN ATHLETIC TRAINING**

**3** Lecture Hours · **2** Lab Hours

Classroom and laboratory experiences that provide an introduction to the profession of Athletic Training with an emphasis on prevention and acute care of activity related injuries and illnesses. Specific topics will include injury prevention strategies; emergency first aid and acute care; superficial application of therapeutic modalities; nutritional considerations; and environmental considerations.

### **KINE5430 – ORTHOPEDIC ASSESSMENT I**

**3** Lecture Hours · **2** Lab Hours

A study of the common orthopedic injuries involving the lower extremities, with a special emphasis on recognition, evaluation, diagnosis, and initial management. Prerequisites: KINE 5120, 5220, and 5420.

### **KINE5431 – ORTHOPEDIC ASSESSMENT II**

**3** Lecture Hours · **2** Lab Hours

A study of the common orthopedic injuries involving the upper extremities, spine, head, and face with a special emphasis on recognition, evaluation, diagnosis, and initial management. Prerequisite: KINE 5430

### **KINE5432 – PATHOPHYSIOLOGY AND PHARMACOLOGY**

**3** Lecture Hours · **2** Lab Hours

A study of acute and chronic illnesses and their response to, and impact on, physical activity. Discussion of pharmacological agents used in the care of general illnesses and musculoskeletal disorders in the

physically active. Prerequisite: KINE 5430, KINE 5433, KINE 5130

### **KINE5433 – THERAPEUTIC INTERVENTIONS I**

**3** Lecture Hours · **2** Lab Hours

A study of the scientific theory and basic principles of musculoskeletal rehabilitation and therapeutic modalities. Emphasis will be placed on understanding the disablement model and learning how to plan, implement, document, and evaluate programs for the rehabilitation and reconditioning of injuries and illnesses of athletes and others involved with physical activity. Operation of superficial heating and cooling therapeutic modalities and how manual treatments (e.g., traction, muscle energy and massage) can be incorporated into a rehabilitation program will be investigated. The underlying principles and application techniques for each modality, therapeutic exercise progressions, patient clinical goals, legal and safe practice guidelines, and evidence based therapeutic modality science will allow for critical thinking and problem solving in relation to common lower extremity injuries. Both surgical and non-surgical rehabilitation models for the lower extremity will be discussed with a special emphasis on the use of functional progressions. Prerequisites: KINE 5420, KINE 5220, KINE 5120

### **KINE5434 – THERAPEUTIC INTERVENTIONS II**

**3** Lecture Hours · **2** Lab Hours

A study of the upper extremity and low back rehabilitation protocols and the use of electric therapeutic modalities (e.g., ultrasound, diathermy, laser, and electric stimulation). Emphasis will be placed on understanding the disablement model and learning how to plan, implement, document, and evaluate programs for the rehabilitation and reconditioning of injuries and illnesses of athletes and others involved with physical activity. Operation of electrical therapeutic modalities and how they can be incorporated into a rehabilitation program will be investigated. The underlying principles and application techniques for each modality, therapeutic exercise progressions, patient clinical goals, legal and safe practice guidelines, and evidence based therapeutic modality science will allow for critical thinking and problem solving in relation to common upper extremity and low back injuries. Both surgical and non-surgical rehabilitation models for the upper extremity and low back will be discussed with a special emphasis on the use of functional progressions. Prerequisite: KINE 5433

### **KINE5498 – THESIS**

**4** Lecture Hours · **0** Lab Hours

### **KINE5598 – THESIS**

**5** Lecture Hours · **0** Lab Hours

### **KINE5694 – RESEARCH IN KINESIOLOGY**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

### **KINE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **KINE5994 – RESEARCH IN KINESIOLOGY**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects selected from the various areas of Kinesiology.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and Engineering](#)

[Electrical Engineering](#)

[Industrial and Manufacturing Systems Engineering](#)

[Materials Science and Engineering](#)

[Mechanical & Aerospace Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public Affairs](#)

[Admissions Requirements & Procedures](#)

[General Information & Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Bioengineering

College of Engineering

**Chair Michael Cho**

**Chair Liping Tang**

Web [www.uta.edu/biomed\\_eng/](http://www.uta.edu/biomed_eng/)

Email [bme@uta.edu](mailto:bme@uta.edu)

Phone 817.272.2249

Fax 817.272.2251

**226 Engineering Research Building**

---

### Degrees / Certificates

#### Master's Degrees

Biomedical Engineering, M.S.

#### Doctoral Degrees

Biomedical Engineering, B.S. to Ph.D.

Biomedical Engineering, Ph.D.

---

### Graduate Faculty

[Christopher Chen](#)

[Michael Cho](#)

[Yi Hong](#)

[Justyn Jaworski](#)

[Juhyun Lee](#)

[Jun Liao](#)

#### Professor

[Khosrow Behbehani](#)

[Cheng-Jen Chuong](#)

[Hanli Liu](#)

[Liping Tang](#)

#### Associate Professor

[Digant Dave](#)

[Kytai Nguyen](#)

[Mario Romero-Ortega](#)

#### Assistant Professor

[Georgios Alexandrakis](#)

[Young-Tae Kim](#)

[Baohong Yuan](#)

#### Adjunct Professor

[Robert Eberhart](#)

---

## Graduate Advisors

### Kytai Nguyen

*Biomedical Engineering, M.S.*  
*Biomedical Engineering, Ph.D.*

### Liping Tang

*Biomedical Engineering, B.S. to Ph.D.*  
*Biomedical Engineering, Ph.D.*

---

## Department Information

### Courses

# Department Information

### Objectives

- **Master's Program**
- **Doctoral Program**
- **Combined Degree Plan: Bachelor of Science in Biology and Master of Science in Bioengineering**
- **Fast Track Programs for a Master's Degree in Biomedical Engineering**
  - **Description**
  - **Career Opportunities**

### Admission

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferral**
- **Denial**
- **Fellowship**

### Continuation

### Degree Requirements

- **Master of Science Degree Plans**
- **Doctor of Philosophy Degree Plan**
- **Courses offered at The University of Texas Southwestern Medical Center at Dallas**

## Objectives

The Biomedical Engineering Program is jointly offered by The University of Texas at Arlington and The University of Texas Southwestern Medical Center at Dallas (UT Southwestern). Research and teaching efforts of various departments in the biological, engineering, mathematical, physical, and medical sciences of both institutions are coordinated through the Committee on Graduate Studies in Bioengineering. The goal of the program is to prepare students for bioengineering careers requiring skills in research, development, and teaching in a variety of settings in industry, in hospitals, in research facilities of educational and medical institutions and in government regulatory agencies. Internships are aimed to further prepare students for careers in the bioengineering industry.



The program includes coursework and research in medical imaging, biosensors, physiological control systems, biomedical signal processing, biomedical instrumentation, rehabilitation, orthopedics, biomechanics, biomaterials and tissue engineering, cell and molecular engineering and neurosciences. Specifically, during the first year of their studies, students in the master's and doctoral programs must select one of the concentration tracks in Bioengineering:

1. Bioinstrumentation,
2. Biomaterials/Tissue Engineering,
3. Biomechanics,
4. Medical Imaging, and
5. Protein Engineering.

An advisor is available to advise students on the relevant courses and the research opportunities in each track.

### Master's Program

The master's program is based upon graduate level work in Bioengineering, life sciences and related physical sciences.

### Doctoral Program

The doctoral program is based upon graduate level work in Bioengineering, and extensive graduate training in the life sciences and related physical sciences. The program is aimed at the development of professional biomedical engineers capable of independent research.

### Combined Degree Plan: Bachelor of Science in Biology and Master of Science in Bioengineering

This five-year curriculum prepares students for careers in the fast growing biotechnology and Bioengineering industries. The curriculum also prepares students for medical school and advanced study. Students are required to take courses from engineering, life sciences and liberal arts, culminating in a five-year Master of Science Degree in Biomedical Engineering, including a Bachelor of Science Degree in Biology. The curriculum is offered jointly by the College of Engineering and the College of Science.

### Fast Track Programs for a Master's Degree in Biomedical Engineering

The Fast Track program enables outstanding undergraduate Physics or Biochemistry students to receive dual undergraduate and graduate course credit leading to receiving both a Bachelor of Science Degree in either Physics or Biochemistry and a Master's Degree in Biomedical Engineering. See the departmental advisors for additional information on these programs.

### Description

Bioengineers use quantitative methods and innovation to analyze and to solve problems in biology and medicine. Students choose the Bioengineering field to serve people, to partake in the challenge and excitement of working with living systems, and to apply advanced technology to complex problems of medical care. Through this program, students learn the essentials of life science, engineering theory, and the analytical and practical tools that enable them to be successful in the biotechnology and Bioengineering industries. The program includes coursework in the basic sciences, core engineering, Bioengineering, and advanced biotechnology disciplines. Both didactic classroom lectures and hands-on laboratory experience are emphasized. Additionally, students are required to take general educational courses in literature, fine arts, history, political science, and social science.

### Career Opportunities



The program prepares students as biomedical engineers for careers in industry, in hospitals, in research facilities of educational and medical institutions, and in government regulatory agencies. It also provides a solid foundation for those wishing to continue for advanced degrees. For those planning to pursue a medical degree, this cross-disciplinary curriculum offers a solid foundation in engineering, which is an advantage in preparing for a medical career.

See the UT Arlington [Undergraduate Catalog](#) for a more detailed description of this program.

## Admission

Application for admission should be made at either UT Arlington or U.T. Southwestern. Normally, the institution through which the student applies and is admitted is the student's home institution.

In addition to admission requirements of the Graduate School, the bachelor's degree held by applicants to the program may be in engineering, biological, physical, or mathematical sciences. Depending on the applicant's background, some preparatory coursework may be required, prior to admission into the program. The UT Arlington Biomedical Engineering Program uses the following guidelines in the admission review process:

### Unconditional Admission

#### Master's Program

1. Minimum undergraduate GPA of 3.0 in the last 60 hours of undergraduate work in an engineering discipline as calculated by the Graduate School.
2. GRE Total (quantitative plus verbal) must be greater than 1100 with a verbal score of 400 or better.
3. Three favorable letters of recommendation.
4. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.

#### Doctoral Program

1. Minimum GPA of 3.4 in the last 60 hours taken in the major field of study of engineering or physical sciences as calculated by the Graduate School.
2. GRE Total (quantitative plus verbal) must be greater than 1175 with a verbal score of 400 or better.
3. Three favorable letters of recommendation.
4. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.

### Probationary Admission

#### Master's Program

1. If the applicant meets any two of the above items 1, 2, and 3.
2. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.

#### Doctoral Program

1. If an applicant meets any two of the above items 1, 2, and 3.
2. A minimum total TOEFL score of 233 for Computer-based testing, 575 for Paper-based testing and a score of 90 for Internet-based testing or better for international applicants whose native language is not English.

## Provisional Admission

An applicant who is unable to supply all required documents prior to the admission deadline, but who otherwise appears to meet admission requirements may be granted provisional admission.

## Deferral

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

## Denial

A candidate may be denied admission if he/she has less than satisfactory performance in two out of the three admission criteria, excluding TOEFL.

## Fellowship

No additional requirements besides the information published by the Graduate School.

## Continuation

The Biomedical Engineering Graduate Program has established certain policies to fulfill its responsibility to graduate highly qualified professional engineers. In addition to the requirements of the Graduate School listed in this catalog under Advanced Degrees and Requirements, each bioengineering graduate student who wants to continue in the program must:

1. Maintain at least a B (3.0) overall GPA in all coursework, and
2. Demonstrate suitability for professional engineering practice.

At such time as questions are raised by bioengineering graduate faculty regarding either of the above, the student will be notified and will be provided the opportunity to respond to the Committee on Graduate Studies in Bioengineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "[Grievances Other than Grades.](#)"

## Degree Requirements

### Master of Science Degree Plans

Students in the Thesis Degree plan must take a minimum of 31 credit hours, and students in the Thesis-Substitute Degree plan must take a minimum of 33 credit hours as specified below.

**Required Bioengineering:** One laboratory course in Bioengineering approved by the graduate advisor such as Laboratory Principles (BE 5382) or Tissue Engineering Lab (BE 5365); BE Seminar (BE 5101).

**Bioengineering:** Four courses from the following list consistent with the student's track of study and approval of the Graduate Advisor: Biological Materials, Mechanics, and Processes (BE 5335); Finite Element Applications in Bioengineering (BE 5340); Biosensors and Applications (BE 5345); Modeling and Control of Biological Systems (BE 5350); Digital Control of Biomedical Systems (BE 5351); Digital Processing of Biological Signals (BE 5352); Design and Application of Artificial Organs (BE 5360); Thermoregulation and Bioheat Transfer (BE 5362); Biomaterials and Blood Compatibility (BE 5361); Introduction to Orthopedic Mechanics (BE 5331D); Orthopedic Biomaterials (BE 5332D); Tissue Engineering (BE 5364); Tissue Engineering Laboratory (BE 5365); Process Control in Biotechnology (BE 5366); Biomaterial-Living System Interactions (BE 5370).

**Engineering:** One course from Bioengineering or other engineering departments, with the approval of the Graduate Advisor.

**Required Life Sciences:** Human Physiology (BE 5309D) and one other life science course with the approval of the Graduate Advisor.

**Thesis Plan:** Directed Research in Bioengineering (BE 5391), re-enroll as needed; Thesis (BE 5698) at the semester in which the student expects to submit and defend the thesis.

**Thesis-Substitute Plan:** Master's Comprehensive Examination (BE 5293); Research Project (BE 5390), re-enroll as needed or a minimum of three hours of Biomedical Internship (6395, 6695 or 6995); and one 3-hour graduate level course from Bioengineering, life science or engineering with the approval of the Graduate Advisor.

## Doctor of Philosophy Degree Plan

The Ph.D. degree program consists of a minimum of 47 credit hours beyond the bachelor's degree level and includes the courses as specified below. Course requirements differ for the Protein Engineering and Molecular and Computational Bioengineering track. See track advisor for details.

**Required Bioengineering:** One laboratory course in bioengineering approved by the Graduate Advisor, such as Laboratory Principles (BE 5382) or Tissue Engineering Lab (BE 5365); BE Seminar (BE 5101); Ph.D. Seminar in BE (BE 6103) for at least two semesters.

**Elective Bioengineering:** Five courses from: Biological Materials, Mechanics, and Processes (BE 5335); Finite Element Applications in Bioengineering (BE 5340); Biosensors and Applications (BE 5345); Modeling and Control of Biological Systems (BE 5350); Digital Control of Biomedical Systems (BE 5351); Digital Processing of Biological Signals (BE 5352); Design and Application of Artificial Organs (BE 5360); Thermoregulation and Bioheat Transfer (BE 5362); Biomaterials and Blood Compatibility (BE 5361); Introduction to Orthopedic Mechanics (BE 5331D); Orthopedic Biomaterials (BE 5332D); Tissue Engineering (BE 5364); Tissue Engineering Laboratory (BE 5365); Process Control in Biotechnology (BE 5366); Biomaterial-Living System Interactions (BE 5370) or other courses with the approval of the Graduate Advisor.

**Engineering:** One course from other engineering departments or a life science course with the approval of the Graduate Advisor.

**Life Sciences:** Human Physiology (BE 5309); Cell Physiology, Neuroscience, or Tumor Physiology; and Biochemistry, Molecular Biology, or Immunology are required. Other life science courses may also be taken with the approval of the Graduate Advisor.

**Mathematics, Statistics, Computer and Physical Sciences:** A course in biostatistics is required.

**Ph.D. Examinations and Dissertation:** All doctoral students must satisfactorily complete the following exams: Doctoral Diagnostic Examination (BE 6194), Doctoral Comprehensive Examination (BE 6195), and Dissertation (BE 6999) at the semester in which the student expects to submit and defend the dissertation.

Although qualified applicants may be accepted into the Ph.D. program without earning the Master of Science in Biomedical Engineering, all students must satisfactorily pass the Doctoral Diagnostic Examination (BE 6194). This examination will cover all relevant coursework taken by the student. The examination may be written, oral, or both and consists of a timed, written analysis of a major problem in the student's general area of research interest, followed by an oral examination covering the same material. Elements of engineering, physical and biological science, mathematics, computer science and statistics may be included in this examination.

For additional information, applicants and students should contact the BE Graduate Advisor for a copy of the "Information Brochure" for related and amplified information about the graduate program. The information can also be found at [http://www.uta.edu/biomed\\_eng/](http://www.uta.edu/biomed_eng/).

Note: In degree plan descriptions, course numbers followed by a D are offered at U.T. Southwestern.

## Bioengineering courses offered at The University of Texas Southwestern Medical Center at Dallas (U.T. Southwestern):

BME 5300D. Special Topics in Bioengineering  
BME 5396D. Individual Laboratory Projects  
BME 5363D. Digital Processing of Medical Images  
BME 5306D. Biochemistry  
BME 5307D. Human Anatomy Lectures  
BME 5308D. Human Anatomy Laboratory  
BME 5309D. Human Physiology  
BME 5331D. Introduction to Orthopedic Mechanics  
BME 5332D. Orthopedic Biomaterials  
BME 5680D. Mammalian Physiology

See the U.T. Southwestern Graduate Catalog for course descriptions and additional courses.

## BE Courses

### BE5101 – SEMINAR IN BIOENGINEERING

1 Lecture Hour · 0 Lab Hours

University and guest lecturers speak on topics of current interest in the field of bioengineering.

### BE5191 – DIRECTED RESEARCH IN BIOENGINEERING

1 Lecture Hour · 0 Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### BE5193 – MS COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Individual instruction, directed study, consultation, and comprehensive examination over coursework leading to the Thesis-Substitute Master of Science degree in bioengineering. Graded P/F/R. Required of all Thesis-Substitute MS students.

### BE5281 – BEST PRACTICES IN TEACHING AND LEARNING

2 Lecture Hours · 0 Lab Hours

Introduction to approaches and activities that can facilitate learning. Students gain insight into specific challenges of teaching, basics of designing a course, role of assessments and evaluations, good presentation skills and comparisons of various engagement levels. Students teach mock lessons and are given feedback.

### BE5291 – DIRECTED RESEARCH IN BIOENGINEERING

2 Lecture Hours · 0 Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### BE5293 – MASTERS COMPREHENSIVE EXAMINATION

2 Lecture Hours · 0 Lab Hours

Individual instruction, directed study, consultation, and comprehensive examination over coursework leading to the Master of Science degree in bioengineering. Required of all MS students.

### **BE5300 – SELECTED TOPICS IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Material may vary from semester to semester. May be repeated for credit if different topics are covered for each registration. Prerequisite: permission of the instructor.

### **BE5309 – HUMAN PHYSIOLOGY IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

An introduction to human physiology emphasizing biomedical engineering related topics. The course focuses on understanding basic function with the relationships on the cellular as well as organ level both in healthy and diseased states.

### **BE5316 – FUNDAMENTAL MATH AND PHYSICS FOR BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course introduces the basic physics concepts such as introduction to electromagnetism, Maxwell's equations, computation of Fresnel coefficients, interference and diffraction of light, waveguides and optical fibers, photon counting statistics, and Beer-Lambert law. It also covers basic mathematical concepts such as curvilinear coordinates, vector calculus, Stokes theorem and solving differential equations with initial conditions and the diffusion equation.

### **BE5323 – INTRODUCTION TO BIOPHOTONICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to properties of light, light-cell/tissue interactions, optical techniques, and optical instrumentation, in the context of biophotonic medical applications. Topics that will be covered include fundamental properties of optical wave fields, basic properties and characterization of laser sources and detectors used in modern biomedicine, interferometry, linear and nonlinear light-tissue interactions exploited for biomedical imaging and sensing applications, and spectroscopy.

### **BE5324 – BIOMEDICAL OPTICS LABORATORY**

**0** Lecture Hours · **3** Lab Hours

The primary objective of the Biomedical Optics Laboratory course is to provide students hands-on experience with fundamental optical techniques and instrumentation used in modern biomedical research and applications. The skills learned will be valuable to anyone who intends to work in an experimental setting that requires working knowledge of optical instrumentation and techniques. The course is divided into ten core lab modules that cover topics ranging from basic optical techniques to advanced imaging and spectroscopy techniques.

### **BE5325 – FLUORESCENCE MICROSCOPY**

**3** Lecture Hours · **0** Lab Hours

Introduction to the anatomy of a fluorescence microscope and the physical principles of its operation. Confocal and multi-photon microscopy. Molecular imaging applications based on Forster Resonance Energy Transfer (FRET), Fluorescence Lifetime Imaging (FLIM), Fluorescence Correlation Spectroscopy (FCS), Fluorescence Recovery After Photobleaching (FRAP) and Total Internal Reflection Fluorescence (TIRF) Microscopy

### **BE5327 – TISSUE OPTICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the science and technology behind tissue optical imaging systems and their design requirements for different clinical applications. Diffuse optical tomography, fluorescence tomography, bioluminescence tomography, multi-modality imaging.

### **BE5329 – NEURAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course consists of both lecture/discussion and laboratory. Lecture topics include central and peripheral nervous system injury and regeneration, brain/machine interfacing, primary culture of neural cells, neuroinflammatory and neurodegenerative disease. Laboratories include embryonic and neonatal rat

derived neuronal culturing, immunostaining and quantitative analysis.

### **BE5331 – POLYMERS IN BIOMEDICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This is a foundation course in polymeric biomaterial design, synthesis, characterization, and processing. The topics include design, surface-engineering, functionalization, characterization, as well as micro- and nano-fabrication of polymeric biomaterials. The biomedical applications of the polymeric biomaterials and their interaction with cell/tissue is discussed.

### **BE5333 – NANOBIMATERIALS**

**3** Lecture Hours · **0** Lab Hours

Synthesis, fabrication, characterization, and biomedical applications of nanobiomaterials. Topics include synthetic nanobiomaterials, biological nanobiomaterials (DNA nanomaterials, protein and peptide nanomaterials, etc.), biofunctionalization of nanobiomaterials, use of nanobiomaterials in tissue engineering, drug delivery, gene delivery.

### **BE5335 – BIOLOGICAL MATERIALS, MECHANICS, & PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Typical functional behavior of various biological materials, flow properties of blood, bioviscoelastic fluids and solids, mass transfer in cardiovascular and pulmonary systems.

### **BE5337 – TRANSPORT PHENOMENA IN BIOMEDICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Principles of momentum, mass and heat transfer; description of blood flow, trans-capillary, interstitial, lymphatic fluid transport and pulmonary gas exchange. Applications in the design of blood oxygenator, dialysis devices, and strategies in drug delivery, hyperthermia treatment. Prerequisite: undergraduate courses in CE 2312 Statics/Dynamics, MAE 2314 Fluid Mechanics I or CE 3305 and MAE 3310 Thermodynamics I or CHEM 3321.

### **BE5340 – FINITE ELEMENT APPLICATIONS IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The course describes the fundamental principles of the finite element method and various numerical modeling techniques. Topics include variational and Galerkin formulations, linear and Hermitian elements, accuracy and convergence. Applications in biological systems and to the design of prosthetic devices are emphasized. Topic areas include linear elasticity, fluid dynamics, heat transfer, and mass transport processes.

### **BE5344 – BIOINSTRUMENTATION I**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of bioinstrumentation, including operational amplifiers and instrumentation amplifiers; measurements of biopotentials; signals and noise in biological systems; mechanical transducers; resistive, inductive, capacitive transducers; measurement of temperature, blood pressure and flow; electrical safety.

### **BE5346 – MEDICAL IMAGING**

**3** Lecture Hours · **0** Lab Hours

This course introduces basic medical imaging modalities, including X-ray Computed Tomography (CT), Nuclear Medicine Imaging (PET and SPECT), Magnetic Resonance Imaging (MRI), and image-guided interventions. Through this course, the students will learn fundamental knowledge on how medical images are obtained and how they can be used for diagnosis, therapy, and surgery.

### **BE5347 – PRINCIPLES OF FUNCTIONAL MAGNETIC RESONANCE IMAGING**

**3** Lecture Hours · **0** Lab Hours



This course introduces basic principles of Magnetic Resonance Imaging (MRI) and functional MRI (fMRI) for brain functional imaging. After taking this course, the students will gain basic knowledge on how functional brain images are obtained from MRI and fMRI as well as how they can be used for diagnosis, therapy, and surgery. The emphasis in this course is on fMRI. This course will include lecture and some laboratory exercises involving actual fMRI measurement data.

### **BE5350 – MODELING AND CONTROL OF BIOLOGICAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Introduction to fundamental methods of modeling, analysis and control of biological systems. Linear system modeling, state space modeling, stability analysis, basic identification techniques. Examples from cardiopulmonary, visual, and motor control systems. Prerequisite: an undergraduate course in linear systems, control theory, or consent of the instructor.

### **BE5352 – DIGITAL PROCESSING OF BIOLOGICAL SIGNALS**

**3** Lecture Hours · **0** Lab Hours

Fundamental techniques for extraction of useful information from signals acquired from biological systems. Topics include time and frequency domain analysis, cross correlation, spectrum analysis, and convolution. Design of FIR and IIR filters for processing biological signals are described. Examples include cardiac, respiratory, and biomechanical movements. Prerequisite: an undergraduate engineering course in signals and systems analysis or consent of the instructor.

### **BE5360 – DESIGN AND APPLICATION OF ARTIFICIAL ORGANS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of fluid mechanics, mass transfer and chemical reaction in engineered biological systems. Simple solutions are developed for the design of artificial ventricular assist devices, total artificial hearts, lungs and kidneys.

### **BE5361 – BIOMATERIALS AND BLOOD COMPATIBILITY**

**3** Lecture Hours · **0** Lab Hours

This course is an introduction to polymer structure and fabrication methods. Blood and tissue interactions with materials, and methods to improve the biocompatibility of materials are discussed.

### **BE5364 – TISSUE ENGINEERING LECTURE**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of cell/extracellular matrix interactions in terms of cell spreading, migration, proliferation and function. Soft and hard tissue wound healing and nerve regeneration. Polymer scaffolding materials and fabrication methods. Cell-polymer interactions. In vitro and in vivo tissue culture and organ replacement.

### **BE5365 – TISSUE ENGINEERING LAB**

**0** Lecture Hours · **3** Lab Hours

Each student will be given the opportunity to perform the techniques commonly used in tissue engineering and biomaterial research. These techniques are culture media preparation, cell culture/subculture, degradable scaffold preparation, scaffold modification, histological sections and staining, and cell imaging analyses.

### **BE5366 – PROCESS CONTROL IN BIOTECHNOLOGY**

**2** Lecture Hours · **3** Lab Hours

Principles and methods of measurement, data acquisition and analysis. Application of control theory in biological systems and in biotechnology processes; control of pressure, flow, temperature, and pH. Prerequisite: an undergraduate course in control theory or consent of the instructor.

### **BE5370 – BIOMATERIAL - LIVING SYSTEMS INTERACTION**

**3** Lecture Hours · **0** Lab Hours

This course describes current developments in molecular structure and organization at synthetic material interfaces with tissues and the subsequent influences on cells and cell membranes. It is designed to lay the groundwork for an improved understanding of events at the biomaterial-living system interface.

### **BE5372 – DRUG DELIVERY**

**3** Lecture Hours · **0** Lab Hours

This class focuses on the development, design and application of controlled and targeted drug delivery systems including transdermal, inhalation, drug eluting stents, stimulated-drug as well as microparticles and nanoparticles for controlled drug delivery. Principles of drug delivery, targeting, modification, distribution and diffusion will be discussed.

### **BE5373 – DRUG DELIVERY LAB**

**3** Lecture Hours · **0** Lab Hours

This class will provide the students with hands-on experience for developing drug delivery systems such as microparticles and nanoparticles that deliver pharmaceutical agents to treat various diseases. The emphasis is on understanding the principles of pharmacokinetics and drug delivery systems to improve the clinical efficacy and reduce side effects.

### **BE5382 – LABORATORY PRINCIPLES**

**0** Lecture Hours · **9** Lab Hours

Introduction to fundamental biomedical engineering laboratory procedures including human studies and animal surgery; includes clinical laboratory projects; data collection, analysis, and interpretation. Prerequisite: permission of the instructor.

### **BE5390 – RESEARCH PROJECT**

**3** Lecture Hours · **0** Lab Hours

Taken by students enrolled in the non-thesis option for the MS degree. Individual instruction in research and/or instrumentation development and evaluation conducted under supervision of the instructor. A final report required. Graded P/F/R. Prerequisite: permission of the instructor.

### **BE5391 – DIRECTED RESEARCH IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### **BE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: graduate standing in biomedical engineering.

### **BE5691 – DIRECTED RESEARCH IN BIOENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Student participates in a research project under the individual instruction of a faculty supervisor.

### **BE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: graduate standing in biomedical engineering.

### **BE6103 – PHD SEMINAR IN BIOENGINEERING**

**1** Lecture Hour · **0** Lab Hours

Students will be assigned to participate in the journal clubs and medical grand rounds relevant to their areas of research in Bioengineering. Graded P/F only. Prerequisite: Ph.D. student status.



### **BE6194 – DOCTORAL DIAGNOSTIC EXAMINATION**

**1** Lecture Hour · **0** Lab Hours

Individual instruction, directed study, consultation, and diagnostic examination. Required of all doctoral students in the semester when they take any portion of the diagnostic examination.

### **BE6195 – DOCTORAL COMPREHENSIVE EXAMINATION**

**1** Lecture Hour · **0** Lab Hours

Individual instruction, directed study, consultation, and comprehensive examination on a detailed prospectus of proposed dissertation research as well as an oral examination. Required of all doctoral students in the semester when they take the comprehensive examination. Prerequisite: BE 6194.

### **BE6197 – RESEARCH IN BIOENGINEERING**

**1** Lecture Hour · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of biomedical engineering.

### **BE6297 – RESEARCH IN BIOENGINEERING**

**2** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of biomedical engineering.

### **BE6395 – INTERNSHIP IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Students are placed with a bioengineering company or a hospital to gain firsthand industrial or clinical engineering experience. The company or hospital assigns projects, and a faculty member monitors the student's progress. Students register for 3 (BE 6395), 6 (BE 6695), or 9 (BE 6995) credit hours during each semester. Prerequisite: completion of at least 9 graduate credit hours in BE and good standing in the graduate program.

### **BE6397 – RESEARCH IN BIOENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of bioengineering.

### **BE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. Graded R/F only. Prerequisite: admission to candidacy for the Ph.D. in Biomedical Engineering.

### **BE6499 – DISSERTATION**

**4** Lecture Hours · **0** Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. This course is only to be taken by students preparing a dissertation for submission that is supervised primarily by a University of Texas Southwestern Medical School faculty member and must be taken concurrently with a 5-hour dissertation course at that institution. To satisfy requirement that a P be awarded in a 9-hour dissertation course in their final semester of enrollment, a student must be concurrently enrolled in this course and the 5-hour dissertation course at the University of Texas Southwestern Medical School and receive a P in both courses at the end of that semester. If a P is not awarded in both classes, the two classes must be repeated until P grades are concurrently awarded.

### **BE6695 – INTERNSHIP IN BIOENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Students are placed with a bioengineering company or a hospital to gain firsthand industrial or clinical

engineering experience. The company or hospital assigns projects, and a faculty member monitors the student's progress. Students register for 3 (BE 6395), 6 (BE 6695), or 9 (BE 6995) credit hours during each semester. Prerequisite: completion of at least 9 graduate credit hours in BE and good standing in the graduate program.

### **BE6697 – RESEARCH IN BIOENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of bioengineering.

### **BE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. Graded R/F only. Prerequisite: admission to candidacy for the Ph.D. in Biomedical Engineering.

### **BE6995 – INTERNSHIP IN BIOENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Students are placed with a bioengineering company or a hospital to gain firsthand industrial or clinical engineering experience. The company or hospital assigns projects, and a faculty member monitors the student's progress. Students register for 3 (BME 6395), 6 (BME 6695), or 9 (BME 6995) credit hours during each semester. Prerequisite: completion of at least 9 graduate credit hours in BE and good standing in the graduate program.

### **BE6997 – RESEARCH IN BIOENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of bioengineering.

### **BE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Preparation and submission of a doctoral dissertation in an area of bioengineering. Graded P/R/F. Prerequisite: admission to candidacy for the Ph.D. in Biomedical Engineering.

### **BE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **HSC Courses**

### **HSC5094 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

### **HSC5096 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5098 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5101 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5102 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5106 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5123 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5152 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5154 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5162 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5172 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5173 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5184 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5191 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5193 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC5194 – CONCURRENT COURSE**

1 Lecture Hour · 0 Lab Hours

**HSC5195 – CONCURRENT COURSE**

1 Lecture Hour · 0 Lab Hours

**HSC5196 – CONCURRENT COURSE**

1 Lecture Hour · 0 Lab Hours

**HSC5291 – CONCURRENT COURSE**

0 Lecture Hours · 2 Lab Hours

**HSC5294 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5296 – CONCURRENT COURSE**

2 Lecture Hours · 0 Lab Hours

**HSC5300 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5302 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5304 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5306 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5307 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5308 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5309 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5323 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5331 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5360 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5361 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5362 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5363 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5370 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5372 – CONCURRENT COURSE**

0 Lecture Hours · 0 Lab Hours

**HSC5374 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5381 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5382 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5383 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5385 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5387 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5388 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5389 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5390 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5391 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5392 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5394 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5395 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5396 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5398 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5399 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5491 – CONCURRENT COURSE**

4 Lecture Hours · 0 Lab Hours

**HSC5494 – CONCURRENT COURSE**

4 Lecture Hours · 0 Lab Hours

**HSC5499 – THESIS RESEARCH**

4 Lecture Hours · 0 Lab Hours

**HSC5505 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5580 – CONCURRENT COURSE**

5 Lecture Hours · 0 Lab Hours

**HSC5582 – CONCURRENT COURSE**

5 Lecture Hours · 0 Lab Hours

**HSC5594 – CONCURRENT COURSE**

3 Lecture Hours · 0 Lab Hours

**HSC5598 – CONCURRENT COURSE**

5 Lecture Hours · 0 Lab Hours

**HSC5607 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5683 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5694 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5698 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5699 – CONCURRENT COURSE**

6 Lecture Hours · 0 Lab Hours

**HSC5794 – CONCURRENT COURSE**

7 Lecture Hours · 0 Lab Hours

**HSC5796 – CONCURRENT COURSE**

7 Lecture Hours · 0 Lab Hours

**HSC5798 – CONCURRENT COURSE**

7 Lecture Hours · 0 Lab Hours

**HSC5894 – CONCURRENT COURSE**

8 Lecture Hours · 0 Lab Hours

**HSC5983 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC5994 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6103 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6195 – CONCURRENT COURSE**

**1** Lecture Hour · **0** Lab Hours

**HSC6395 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6397 – CONCURRENT COURSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6399 – DISSERTATION PREPARATION & DEFENSE**

**3** Lecture Hours · **0** Lab Hours

**HSC6599 – DISSERTATION PREPARATION AND DEFENSE**

**5** Lecture Hours · **0** Lab Hours

**HSC6695 – CONCURRENT COURSE**

**6** Lecture Hours · **0** Lab Hours

**HSC6995 – CONCURRENT COURSE**

**9** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
    - Bioengineering
    - Civil Engineering
    - Computer Science and Engineering
    - Electrical Engineering
    - Industrial and Manufacturing Systems Engineering
    - Materials Science and Engineering
    - Mechanical & Aerospace Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Civil Engineering

College of Engineering

### Chair Nur Yazdani

Web [www.uta.edu/ce/](http://www.uta.edu/ce/)  
Phone 817.272.5055  
Fax 817.272.2630

417 Nedderman Hall

---

### Degrees / Certificates

#### Master's Degrees

Civil Engineering, M.Engr.  
Civil Engineering, M.Engr. Fast Track  
Civil Engineering, M.S.  
Master of Construction Management

#### Doctoral Degrees

Civil Engineering BS to PhD-DB  
Civil Engineering, Ph.D.

---

### Graduate Faculty

Zheng Fang  
S Ham  
Seyed Mohsen Shahandashti  
Yvette Weatherton

#### Professor and Chair

Seyedali Abolmaali

#### Professor of Practice

Mohammad Najafi

#### Professor

Siamak Ardekani  
Md Hossain  
Laureano Hoyos  
Anand Puppala  
James Williams  
Nur Yazdani

#### Associate Professor

Shih-Ho Chao  
Andrew Kruzic  
Stephen Mattingly  
Stefan Romanoschi  
Melanie Sattler  
Dong-Jun Seo

#### **Assistant Professor**

**Hyeok Choi**  
**Xinbao Yu**

#### **Senior Lecturer**

**Mostafa Ghandehari**  
**Srinivas Prabakar**  
**Seyed Mohammad Razavi**

---

### **Graduate Advisors**

#### **Kristiana Hamedi**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*

#### **Sara Ridenour**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*  
*Master of Construction Management*

#### **Melanie Sattler**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.S.*  
*Civil Engineering, Ph.D.*

---

### **Department Information**

#### **Courses**

## **Department Information**

#### **Objective**

- **Masters (M.S. and M.Engr.) Student Learning Outcomes**
- **Ph.D. Student Learning Outcomes**

#### **Admission**

- **CE Master's Program**
- **CE Doctoral Program**
- **CE BS-Ph.D. Program**

#### **Grade Requirements and Continuation**

#### **Degree Requirements**

#### **Dual Program Degree**

#### **Undergraduate Coursework Credit**

#### **Objective**

The objective of the graduate program in civil engineering is to prepare students for continued professional and scholarly development consistent with their technical interests. Students, with the assistance of a faculty advisor in their area of interest, plan their programs of study in one of the technical areas in civil engineering. Typical program and research areas are:

1. Environmental (water and air quality control, and solid and hazardous materials control);
2. Geotechnical (soil mechanics and foundations);
3. Infrastructure Systems Engineering and Management;
4. Structures and Applied Mechanics;
5. Transportation (traffic planning, highways, airports and transit);
6. Water Resources (hydrology and hydraulics);
7. Construction Engineering and Management

The department provides the student an opportunity to study advanced and special topics that are on the forefront of technology. These courses carry CE 5300 or CE 6300 numbers and are identified on a student's academic record by both number and course title. Examples of topics offered in the typical program areas are:

**Construction Engineering and Management**-Engineering, Technical, and Managerial Aspects of Construction Projects; Productivity of Construction Operations; Cost Estimating, Project Scheduling, Job Costing, Contracts, Specifications and Legal Aspects of Construction; Equipment Utilizations and Field Operations; Design of Construction Operations; Environmental and Sustainability Aspects of Construction Projects; Computer Applications.

**Environmental** - Advanced Dispersion Modeling, Analysis of Pollutant Characteristics, Hazardous Waste Remediation;

**Geotechnical**- Expansive Clays, Soil Chemical Stabilization;

**Infrastructure Systems Engineering and Management** - Civil Engineering Infrastructure Systems to Transport People, Goods, Water, Waste Water, Solid Waste, Energy and Information;

**Structures and Applied Mechanics** - Earthquake Engineering, Finite Elements and Mechanics, Bridge Design, Advanced Design with Timber, Masonry, Steel and Concrete;

**Transportation** - Intelligent Transportation Systems, Network Modeling, Urban Operations Research, Vehicular Energy Consumption and Emissions, Transit and Paratransit, Intermodal Systems;

**Water Resources** - Kinematic Wave Theory, Urban Hydrology, Distributed Modeling, Physical Modeling, and Boundary Layer Theory.

### Masters (M.S. and M.Engr.) Student Learning Outcomes

1. *Fundamental Knowledge*: Graduates will have extensive basic and applied knowledge in their selected Civil Engineering Program (CEP) interest area.
2. *Independent Abilities*: Graduates will have the ability to conduct independent and original study ranging from gathering of information to application, analysis, creation, documentation of the study, and its resolution.
3. *Critical Thinking*: Graduates will have extensive breadth and ability to critique and synthesize literature, review results and to apply this knowledge in developing new ideas, in designing and evaluating scientific investigations, and in assessing, interpreting and understanding data relating to their selected CEP interest area.
4. *Advanced Knowledge*: Graduates will demonstrate extensive mastery of the subject matter at a deeper theoretical and applied level beyond the fundamental knowledge gained in his/her undergraduate course sequence.
5. *Effective Communication*: Graduates will have the ability to present scientific results in both written and oral format in various forums including thesis defense, master's defense, project reports, manuscripts, professional society meetings, journals, and performing class

lectures, presentations, and reports.

6. *Professional Development:* A student graduating with a master's degree in civil engineering is expected to demonstrate interest in pursuing life long learning by attaining professional licenses, and obtaining professional development hours by attendance at conferences, higher educational classes, short courses and seminars, conducting classes, and publishing.

### Ph.D. Student Learning Outcomes

1. *Fundamental Knowledge:* Graduates will command profound basic and applied knowledge in their specialty area within their Civil Engineering Program (CEP) interest area.
2. *Independent Abilities:* Graduates will have the ability to conduct a major independent and original research study that includes gathering of information, gaining an understanding of the process of academic or commercial exploitation of research results, demonstrating an understanding of contemporary research issues, effective project management, synthesis and evaluation, and appropriate dissemination of research findings.
3. *Critical Thinking:* Graduates will have a profound ability to critique and synthesize literature, review results and to apply knowledge gained from literature to develop new ideas, to design and evaluate scientific investigations, and to assess, interpret and understand data related to their specialty area within their CEP interest area.
4. *Advanced Knowledge:* Graduates will demonstrate profound mastery of the subject matter at a deeper theoretical and applied level well beyond fundamental knowledge gained in the undergraduate course sequence and the higher-level knowledge gained in the master's level course sequence.
5. *Effective Communication:* Graduates will have the ability to construct coherent arguments and articulate ideas clearly to an audience, through a variety of techniques, constructively defend research outcomes, justify their research to the profession and promote the public understanding of their research fields.
6. *Professional Development:* A student graduating with a doctoral degree in civil engineering is expected to demonstrate interest in pursuing life long learning by attaining professional licenses, and obtaining professional development hours by attendance at conferences, higher educational classes, short courses and seminars, conducting classes, and publishing.

## Admission

Performance on the GRE will not be the sole criterion for admitting applicants or the primary criterion to deny admission to either the master's or Ph.D. program. In cases where GRE performance is relatively poor all other qualifications presented by the applicant will be carefully evaluated for evidence of potential for success.

### CE Master's Program

#### Unconditional Admission

A student must meet the following requirements for unconditional admission:

1. A Bachelor's Degree in Civil Engineering (Applicant with an appropriate Bachelor's Degree in another discipline is considered, subject to satisfactory completion of deficiency courses for area of interest.)
2. An undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful applicant.
3. A Graduate Record Exam (GRE) Quantitative score of 700 (old score system) or 155 (new score system) or higher is typical of a successful applicant.
4. A Graduate Record Exam Verbal score of 390 (old score system) or 146 (new score system) or higher is typical of a successful applicant.

5. For applicants whose native language is not English, a minimum score of 558 on the written Test of English as a Foreign Language (TOEFL), 220 on the computer TOEFL, 83 on TOEFL iBT, 40 on the TSE-A, 50 on the SPEAK, 400 on Verbal GRE, 85 on METLAB (Michigan English Language Assessment Battery), or 7 on the IELTS (International English Language Testing System). (METLAB and IELTS are used only when other tests are not available in the applicant's country.)
6. Favorable letters of recommendation from people familiar with the applicant's academic work.

### **Probationary Admission**

If applicants do not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission may require that the applicant receive a B or better in at least their first 9 hours of graduate coursework applicable to their degree being sought at UT Arlington, take additional English courses, and/or deficiency courses as required.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline, but whom otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferred Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

### **Waiver of GRE Admission**

A waiver of the GRE may be considered for a UT Arlington graduate who has completed an undergraduate degree within the past 3 years from normal undergraduate feeder program for CE degree. Students must complete the last 60 hours of study and in all undergraduate coursework completed at UT Arlington. The student must comply with all other requirements for admission to the Graduate School, i.e., submitting application, paying fees, providing required transcripts, letters of reference, etc. The applicant's record will be assessed for evidence of strengths relevant to success in the Civil Engineering graduate program. Meeting the minimum GPA requirement shall not be the sole determinant or the primary criterion for granting a waiver.

### **Facilitated Admission of Outstanding UT Arlington Undergraduates**

Facilitated Admission may be considered for a student who has graduated from UT Arlington no more than one academic year prior to proposed entrance to the graduate program. Students must complete the last 60 hours of study at UT Arlington. The student's UT Arlington GPA must equal or exceed 3.5 in the last 60 hours of undergraduate study and all undergraduate coursework completed at UT Arlington. The applicant's record will be assessed for evidence of strengths relevant to success in the Civil Engineering graduate program. Meeting the minimum GPA requirement shall not be the sole determinant or the primary criterion for granting facilitated admission.

### **Fast Track Program for Master's Degree in Civil Engineering**

The Fast Track Program enables outstanding senior undergraduate Civil Engineering students to receive undergraduate and graduate credit for up to six hours of coursework. Technical electives which are dual-listed as graduate courses will satisfy both bachelor's and master's degree requirements. Students pursuing an MECE degree may take up to two courses for dual credit.

Interested undergraduate Civil Engineering students should apply to the Graduate School for

admission to the Fast Track Program when they are within 30 hours of completing their bachelor's degree (and before graduation). For admission consideration, they must have completed at least 30 hours at UT Arlington and have an overall and College of Engineering GPA of at least 3.0 (in both). Additionally, they must have completed a set of three basic undergraduate foundation courses with a grade of B or higher in each course and a GPA of at least 3.3 in these three courses. The specific foundation courses vary according to the student's desired specialty area for the master's degree.

In their final semester as an undergraduate, Fast Track students in good standing will be automatically admitted to graduate school with consent of the Graduate Advisor. No fees, transcripts, or test scores will be required. For further information about this program, contact an undergraduate advisor or the Graduate Advisor in Civil Engineering.

### **Departmental Scholarships**

Students that are unconditionally admitted will be eligible for available scholarships. Award of scholarships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must have a GPA of 3.0 in their last 60 undergraduate credit hours (if entering Graduate School within one year of being granted a Bachelor Degree) plus any graduate credit hours as calculated by the Graduate School. Recipients must maintain at least a 3.0 overall GPA, and must be enrolled in a minimum of 9 hours of coursework in both long semesters to retain their scholarship. Additional requirements may be imposed by the department selection committee.

### **CE Doctoral Program**

#### **Unconditional Admission**

A student must meet the following requirements for unconditional admission:

1. A Master's Degree or at least 30 hours of graduate coursework in Civil Engineering. (Applicant with a Master's Degree in another discipline is considered, subject to satisfactory completion of deficiency courses for the CE area of interest.)
2. No specific GPA requirement (application considered as a whole). However, a graduate coursework GPA of 3.5 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful applicant.
3. A Graduate Record Exam (GRE) Quantitative score of 740 (old score system) or 158 (new score system) or higher is typical of a successful applicant.
4. A competitive Graduate Record Examination Verbal score. A successful applicant typically has a Verbal score of 420 (old score system) or 148 (new score system).
5. For applicants whose native language is not English, a minimum score of 563 on the written Test of English as a Foreign Language (TOEFL), 222 on the computer TOEFL, 84 on TOEFL iBT, 40 on the TSE-A, 50 on the SPEAK, 425 on Verbal GRE, 86 on METLAB (Michigan English Language Assessment Battery), or 7 on the IELTS (International English Language Testing System). (METLAB and IELTS are used only when other tests are not available in the applicant's country.)
6. Favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

#### **Probationary Admission**

If applicants do not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission may require that the applicant receive a B or better in at least their first 9 hours of graduate coursework applicable to their degree being sought at UT Arlington, take additional English courses, and/or deficiency courses as required.

#### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline, but whom otherwise appears to meet admission requirements may be granted provisional admission.



### **Deferred Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

### **Departmental Scholarships and Fellowships**

Students that are unconditionally admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible for a departmental scholarship, candidates must have a GPA of 3.5 in their graduate credit hours. Recipients must maintain at least a 3.5 overall graduate GPA in courses taken as a doctoral student and enroll in a minimum of 9 hours of coursework in both long semesters to retain their scholarship. To be eligible for fellowship consideration, candidates must be first-year doctoral or PhD-bound student, must hold an assistantship of at least 25% time, must have a GPA of 3.25 in their last 60 undergraduate credit hours plus a GPA of 3.25 in any graduate credit hours. Recipients must maintain at least a 3.25 overall graduate GPA in courses taken as a doctoral student and enroll in a minimum of 6 hours of coursework in both long semesters to retain their fellowship. Students who hold a 50% assistantship must maintain full-time enrollment of at least 9 hours. Additional requirements may be imposed by the department selection committee.

## **CE BS-Ph.D. Program**

### **Unconditional Admission**

A student must meet the following requirements for unconditional admission:

1. No Specific GPA requirement (application considered as a whole). However, an undergraduate coursework GPA of 3.5 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful applicant.
2. A Graduate Record Exam (GRE) Quantitative score of 740 (old score system) or 158 (new score system) or higher is typical of a successful applicant.
3. A competitive Graduate Record Examination Verbal score. A successful applicant typically has a Verbal score of 420 (old score system) or 148 (new score system).
4. For applicants whose native language is not English, a minimum score of 563 on the written Test of English as a Foreign Language (TOEFL) 222 on the computer TOEFL, 84 on TOEFL iBT, 40 on the TSE-A, 50 on the SPEAK, 86 on METLAB (Michigan English Language Assessment Battery), or 7 on the IELTS (International English Language Testing System). (METLAB and IELTS are used only when other tests are not available in the applicant's country.)
5. Favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

### **Probationary Admission**

If applicants do not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission may require that the applicant receive a B or better in at least their first 9 hours or graduate coursework applicable to their degree being sought at UT Arlington, take additional English courses, and/or deficiency courses as required.

### **Grade Requirements and Continuation**

The Civil Engineering Graduate Program has established rules, regulations, policies, and procedures for continuation in the graduate program and fulfilling graduation requirements. These can be found in the Civil Engineering Graduate Handbook available in the Civil Engineering Office.

In addition to the requirements of the Graduate School listed elsewhere, to continue in the program each civil engineering graduate student must:

1. Maintain an overall GPA of 3.0 or higher for the Master's program and a Ph.D. or a BS-PhD. student must maintain a minimum GPA of 3.5 or higher in their Ph.D. Civil Engineering coursework and a 3.25 gpa outside of CE average to take the comprehensive examination and to graduate from the Civil Engineering Ph.D. program or BS-Ph.D. program.

No organized course in which a grade of P is received can be used to satisfy course requirements for a graduate degree in civil engineering.

## **Degree Requirements**

The responsibility rests with each student for knowing the rules, regulations, and filing deadlines of the Graduate School and the Civil Engineering Committee on Graduate Studies (see Civil Engineering Graduate Handbook available in Civil Engineering Office). Requirements of the Graduate School and the Civil Engineering Committee on Graduate Studies must be met. The degrees offered and minimum course requirements are identified in the following paragraphs.

The Master of Science degree is a research-oriented program in which completion of a thesis is mandatory. The program consists of a minimum of 24 credit hours of coursework and an acceptable thesis (six credit hours). The Master of Engineering degree is an engineering practice-oriented program requiring a minimum of 36 credit hours. A maximum of six hours may be a special project. A final program examination is required of all master's degree candidates. Thesis degree candidates will be required to present an oral defense of the thesis. Non-thesis degree candidates will fulfill the program examination requirement upon the successful completion of CE 5193, Master's Comprehensive Examination. Candidates must enroll in CE 5193 in the semester they intend to graduate.

The Ph.D. degree is a research degree and, as such, requires the candidate to successfully carry out original, independent research in an area acceptable to the civil engineering faculty. Normally, a minimum of one year of advanced coursework beyond the master's degree is required.

The BS-Ph.D. degree is a research degree and, as such, requires the candidate to successfully carry out original, independent research in an area acceptable to the civil engineering faculty. Normally, a minimum of 48 credits of coursework beyond the bachelor's degree is required.

## **Dual Program Degree**

Students in the Civil Engineering program may participate in a dual degree program whereby they can earn a Master's Degree in Civil Engineering and a Master of City and Regional Planning. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours required to earn both degrees separately. The number of hours that may be jointly applied ranges from six to 18 hours, subject to the approval of each program's Committee on Graduate Studies and Graduate Advisor. Those interested in the dual degree program should consult the appropriate graduate programs for further information on course requirements, including information regarding which courses are suitable for joint application of credit hours.

To participate in the dual degree program, students must make a separate application to each program, be accepted by each program, and must submit separate Programs of Work for each degree showing only courses that meet requirements for the specified degree, including those joint courses that meet requirements for both degrees. A student must be admitted to the second program before completing more than 15 semester hours in the first, exclusive of leveling, deficiency, or foundation courses, and must complete the second degree within one academic year following completion of the first. See also the statement on "Dual Degree Programs" in the general admission section of this catalog.

## **Undergraduate Coursework Credit**



A limited number (not to exceed a total of nine semester hours) of the following courses may be applicable toward a graduate degree if approved in advance by the Civil Engineering Graduate Advisor.

- 4301. CONSTRUCTION JOB COST CONTROL**
- 4302. INFRASTRUCTURE EVALUATION AND MAINTENANCE MANAGEMENT**
- 4305. TRENCHLESS TECHNOLOGY METHODS**
- 4306. PIPELINE ASSET MANAGEMENT**
- 4311. URBAN TRANSPORTATION INFRASTRUCTURE PLANNING**
- 4312. STREET AND HIGHWAY DESIGN**
- 4313. TRAFFIC ENGINEERING**
- 4320. EARTH STRUCTURES DESIGN**
- 4321. FOUNDATION ENGINEERING**
- 4322. APPLICATIONS WITH GEOSYNTHETICS**
- 4323. LANDFILL DESIGN**
- 4324. MECHANICS OF MATERIALS II**
- 4325. FUNDAMENTALS OF FINITE ELEMENT METHOD**
- 4332. CONSTRUCTION METHODS AND MANAGEMENT**
- 4330. HYDRAULIC DESIGN**
- 4334. CONSTRUCTION EQUIPMENT, CONTRACTS AND SPECIFICATIONS**
- 4336. HOT MIX ASPHALT DESIGN AND CONSTRUCTION**
- 4337. PORTLAND CEMENT CONCRETE PAVEMENTS**
- 4348. STRUCTURAL DESIGN IN METALS**
- 4350. INTRODUCTION TO AIR POLLUTION**
- 4351. PHYSICAL UNIT PROCESSES**
- 4353. WATER CHEMISTRY**
- 4354. INTRODUCTION TO HAZARDOUS WASTE MANAGEMENT**
- 4355. DESIGN OF WATER AND WASTEWATER TREATMENT FACILITIES**
- 4358. OPEN CONDUIT SYSTEM**
- 4360. DESIGN OF STRUCTURAL MASONRY**
- 4361. ADVANCED REINFORCED CONCRETE DESIGN**
- 4363. FUNDAMENTALS OF PRESTRESSED CONCRETE**
- 4365. STRUCTURAL WOOD DESIGN**
- 4366. FUNDAMENTALS OF FIBER REINFORCED COMPOSITES**
- 4368. ADVANCED STRUCTURAL ANALYSIS**
- 4369. LOADS ON STRUCTURES**

## CE Courses

### CE5191 – ADVANCED STUDIES IN CIVIL ENGINEERING

1 Lecture Hour · 0 Lab Hours

Individual studies of advanced topics under the supervision of a professor or professors. Prerequisite: consent of instructor.

### CE5193 – MASTER'S COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Directed study, consultation, and comprehensive examination over coursework leading to the Master of Engineering degree in civil engineering. Required of all Master of Engineering students in the semester they plan to graduate.

### CE5300 – TOPICS IN CIVIL ENGINEERING

3 Lecture Hours · 0 Lab Hours

Topics of current interest in the field of civil engineering. The subject title is listed in the class schedule and in the student's record. Topics vary. May be repeated for credit when topic changes. Prerequisite: consent of instructor.

### CE5302 – PLAIN CONCRETE

3 Lecture Hours · 0 Lab Hours

Basic properties and interactions of hydraulic cements and mineral aggregates in concrete. Topics associated with the properties of plastic and hardened concrete and modifications through the use of admixtures. Also addressed are handling, and placement problems. Other topics will include quality control and acceptance testing; lightweight, heavyweight, and other special concretes. Prerequisite: Grade of C or better in CE 3261.

### CE5303 – INTRODUCTION TO FINITE ELEMENT

3 Lecture Hours · 0 Lab Hours

Stiffness method using basic equations and virtual work; element equations using shape functions for axial, beam, frame, two dimensional elements; stiffness method for three dimensional structures. Flexibility method; finite element modeling and optimization of idealized structures. Credit not granted for both CE 4325 and CE 5303. Prerequisite: Grade of C or better in CE 3341.

### CE5304 – LIGHT GAGE STEEL DESIGN

3 Lecture Hours · 0 Lab Hours

Covers structural design issues for cold formed steel structures. Includes initial buckling and post buckling, stiffened and unstiffened plate behavior, braced and unbraced beams, columns, connectors and shear diaphragms. Building codes, American Iron and Steel Institute (AISI) specifications, material specifications, test methods, and recommended practice documents. Prerequisite: Grade of C or better in CE 4348 or CE 5306.

### CE5305 – FIBER REINFORCED COMPOSITE DESIGN

3 Lecture Hours · 0 Lab Hours

Introduction to basic analysis, design and manufacture of composite materials for engineered structures. Fiber materials, tapes, cloths, resin systems, elastic constants, matrix formulation, theory of failure. The course will also cover an introduction to design with composites, preliminary design, optimization, processing variables, product design. Credit not granted for both CE 4366 and CE 5305. Prerequisite: Grade of C or better in CE 3341.

### CE5306 – STRUCTURAL STEEL DESIGN

**3 Lecture Hours · 0 Lab Hours**

The basic design course for steel structures emphasizing Load Resistant Factor Design Method. Topics include tension members, compression members, flexural members, and simple connections. Building codes, American Institute of Steel Construction (AISC) specifications, material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4348 and CE 5306. Prerequisite: Grade of C or better in CE 3341.

### **CE5307 – STRUCTURAL TIMBER DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Covers material grade, properties of wood, design criteria using structural lumber, glue laminated lumber and structural panels. Design of bending and compression members, trusses and shear diaphragms. Building codes, National Design Specifications (NDS), material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4365 and CE 5307. Prerequisite: Grade of C or better in CE 3341.

### **CE5308 – STRUCTURAL MASONRY DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Covers masonry unit type and grades of mortar types, reinforcing and connectors. Design of beams, columns, pilasters, and walls. Structural behavior and construction practices. Includes plain and reinforced masonry. Building codes, Masonry Standard Joint Committee (MSJC) specifications, material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4360 and CE 5308. Prerequisite: Grade of C or better in CE 3341.

### **CE5309 – PRESTRESSED CONCRETE**

**3 Lecture Hours · 0 Lab Hours**

Introduction to pre-tensioned and post-tensioned concrete structures, bonded and unbonded construction, hardware, stress calculations, section proportioning, flexural design, shear design, prestress losses, deflections, allowable stress, load-balancing, and ultimate strength design/analysis methods, including: partially prestressed systems shear design, analysis and design of composite beams, design of prestressed concrete bridges. Both American Concrete Institute (ACI 318-318) and American Association of State Highway and Transportation Officials Load and Resistance Factor Design (AASHTO LRFD) provisions will be discussed. Credit not granted for both CE 4363 and CE 5309. Prerequisite: Grade of C or better in CE 4347.

### **CE5310 – PLASTIC ANALYSIS AND DESIGN OF STRUCTURES**

**3 Lecture Hours · 0 Lab Hours**

Behavior of structural members beyond elastic range; plastic analysis of steel and concrete members and framed structures; stepwise incremental load and mechanism methods; yield/failure mechanisms for various types of frames. Use of nonlinear structural analysis programs and design code provisions. Application to earthquake resistant design. Prerequisite: CE 4347 and CE 4348; or equivalent.

### **CE5311 – ADVANCED STEEL DESIGN I**

**3 Lecture Hours · 0 Lab Hours**

Covers torsional design of beams, beams with web holes, composite design of beams, lateral-torsional buckling of beams, plate buckling, column design and behavior, frame stability, bracing requirements for compression members. Prerequisite: CE 4348 or CE 5306.

### **CE5312 – ADVANCED CONCRETE DESIGN I**

**3 Lecture Hours · 0 Lab Hours**

Includes structural design of slender columns, walls, truss model for shear and torsion; structural systems such as continuous beams, two-way slabs, yield-line theory and shear friction. Behavior of reinforced concrete structures, with emphasis on ductility and detailing of frames, slabs, and detailing for seismic loads will be covered. Building codes, American Concrete Institute (ACI) specifications, material specifications, test methods, and recommended practice documents. Credit not granted for both CE 4361 and CE 5312. Prerequisite: CE 4347.

### **CE5314 – ADVANCED STEEL DESIGN II**

**3** Lecture Hours · **0** Lab Hours

Covers structural design of beam columns and building connections. Rigid frame and multi-story building design issues. Building codes, American Institute of Steel Construction (AISC) specifications, and recommended practice documents. Prerequisite: CE 4348 or CE 5306.

### **CE5315 – ADVANCED MECHANICS OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Analysis of stresses and strains at a point, stress-strain relationships, stresses due to various loading conditions, theories of failure, energy methods, shear center, unsymmetrical bending, curved beams, torsion in closed and open cell cross-sections, principles of plastic analysis, and buckling analysis. Credit not granted for both CE 4324 and CE 5315. Prerequisite: CE 2313.

### **CE5316 – CURRENT TOPICS IN ENVIRONMENTAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The course provides graduate students with background, knowledge, technology, theory, and application on some "emerging topics" in environmental engineering fields, including water pollution, water and wastewater treatment, post-treatment issues, remediation of contaminated groundwater, soil and sediment, waste management, sustainable engineering, and energy and the environment.

### **CE5317 – ENVIRONMENTAL ENGINEERING PROCESS AND ANALYSIS LAB**

**2** Lecture Hours · **3** Lab Hours

Lectures will cover advanced analytical procedures for the analyses of air, liquid, and other wastes, including optical, chromatographic, electrical, and other instrumental methods of analysis. In the laboratory, students will demonstrate and analyze environmental engineering processes (physical/chemical) for treatment of contaminants, including absorption, gas transfer, acid/base reactions, flocculation, sedimentation, filtration, ion-exchange, precipitation, oxidation-reduction, as well as basic reactor types (CSTR, plug flow, and reactors in series).

### **CE5318 – PHYSICAL-CHEMICAL PROCESSES I**

**3** Lecture Hours · **0** Lab Hours

Principles of unit process modeling using reactor and kinetic theory, theory and design of mixing, mass transfer, flocculation, sedimentation, filtration and gas transfer. Credit not granted for both CE 4351 and CE 5318. Prerequisite: CE 3131 and CE 3334; or consent of instructor.

### **CE5319 – PHYSICAL-CHEMICAL PROCESSES II**

**3** Lecture Hours · **0** Lab Hours

Principles of water chemistry applied to the theory and design of unit processes including coagulation, precipitation, corrosion, oxidation-reduction, and membrane processes. Credit not granted for both CE4353 and CE5319 Prerequisite: CE 3131 and CE 3334; or consent of instructor.

### **CE5321 – ENGINEERING FOR ENVIRONMENTAL SCIENTISTS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of engineering science applicable to the comprehension and design of engineered environmental systems. Includes water and air quality indices; kinetic and reactor theory; mass and energy balances; fluid system theory; and applications of physical, chemical and biological processes in the design of engineered environmental systems. May not be used to satisfy any of the requirements for a graduate degree in Civil Engineering. Prerequisite: PHYS 1441, CHEM 1442, and MATH 2425.

### **CE5325 – BIOLOGICAL PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Biological processes used in water quality control. Includes principles from microbiology and biochemistry applied to suspended and attached growth systems. Prerequisite: CE 5318.

## **CE5326 – WATER AND WASTEWATER TREATMENT FACILITIES DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of facilities commonly used in water and wastewater treatment plants including pumps, pipelines, channels, flow measurement and control devices, screens, grit removal, mixing, sludge removal, aeration equipment, and chemical feed and storage. Materials of construction, process control interface, and operation and maintenance factors are also discussed. Credit not granted for both CE 4355 and CE 5326. Prerequisite: CE 3131, CE 3142, and CE 3334.

## **CE5328 – FUNDAMENTALS OF AIR POLLUTION**

**3** Lecture Hours · **0** Lab Hours

An introduction to the air pollution field including: atmosphere and ideal gas law; pollutant types, sources, effects; Clean Air Act; air pollution measurement; overviews of air pollution meteorology, dispersion modeling, air pollution control, and mobile sources; international air pollution; and indoor air quality. Credit not granted for both CE 4350 and CE 5328. Prerequisite: concurrent enrollment in CE 3334 or CE 5321 or consent of instructor.

## **CE5329 – ENVIRONMENTAL RISK BASED CORRECTIVE ACTION**

**3** Lecture Hours · **0** Lab Hours

Process for the assessment and response to contamination; integrating risk and exposure practices to ensure protection of human health and environment. Includes characterization, EPA tier approach, general aspects of toxicology, dose exposure, pathways, receptors, migration and risk assessment. Prerequisite: consent of instructor.

## **CE5330 – CHARACTERISTICS OF TRAFFIC**

**3** Lecture Hours · **0** Lab Hours

The fundamental elements of traffic - the driver, the vehicle, and the roadway - are considered and then extended into studies of streams of traffic flow. Techniques of conducting traffic engineering studies, including methods of measuring speed, volume, and density, are covered along with methods for the determination of capacity on freeways and rural highways (uninterrupted flow facilities). Parking and accident studies are also included. Prerequisite: CE 3302; and CE 3301 or concurrent registration therein.

## **CE5331 – TRAFFIC ENGINEERING OPERATIONS**

**3** Lecture Hours · **0** Lab Hours

Methods of traffic regulation and control optimization. Traffic laws, motorist communication by means of traffic control devices, and the design and operation of both fixed time and actuated traffic signals at intersections. Analysis and design techniques for intersections using capacity and level of service concepts. Credit will not be granted for both CE 4313 and CE 5331. Prerequisite: CE 3302; and CE 3301 or concurrent registration therein.

## **CE5332 – HIGHWAY DESIGN**

**3** Lecture Hours · **0** Lab Hours

Geometric considerations necessary for the design of city streets, highways, and freeways such as the cross sections, vertical and horizontal alignment, sight distances and stopping distances. Includes the design of maneuver areas, channelization, ramps, intersections, and interchanges. Credit will not be granted for both CE 4312 and CE 5332. Prerequisite: CE 3302.

## **CE5333 – TRAFFIC CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Control algorithms and optimization of splits, offsets, and cycle lengths for arterial progression and traffic signals in networks; computer simulation techniques; problem solving with computer simulation and optimization packages; freeway control using ramp meters and dynamic motorist communications. Prerequisite: CE 4313 or CE 5331.

## **CE5335 – AIRPORT ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Airport master planning, for forecasting air travel demand, airside capacity, passenger terminal design, air traffic control, land access planning and design, landside operations, air cargo facility design. Prerequisite: CE 3302.

### **CE5336 – PAVEMENT DESIGN**

**3** Lecture Hours · **0** Lab Hours

Principles and theoretical concepts of rigid and flexible pavements for highways and airfields; effects of traffic loads, natural forces, and material quality; current design practices; and live cycle cost analysis. Prerequisite: CE 3302, CE 3261, and CE 3343.

### **CE5337 – URBAN TRANSPORTATION PLANNING**

**3** Lecture Hours · **0** Lab Hours

Theory and application of a comprehensive urban transportation planning methodology. Basic studies of population dynamics, urban growth, land use, forecasting trip generation and distribution, traffic assignment, mode split, evaluation, simulation models, characteristics of mass transit and other non-auto modes, and system design and evaluation. Credit will not be granted for both CE 4311 and CE 5337. Prerequisite: CE 3301 and CE 3302; or consent of instructor.

### **CE5338 – SYSTEM EVALUATION**

**3** Lecture Hours · **0** Lab Hours

Techniques necessary to perform economic and multi-criteria evaluations of civil engineering projects. These will be used to assess the strengths and weaknesses of different decision-making strategies and analyze contemporary topics and case studies in making civil engineering decisions. Prerequisite: CE 3310 or IE 3312 or equivalent or consent of instructor.

### **CE5341 – PAVEMENT EVALUATION, REHABILITATION AND MANAGEMENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Pavement inventory; condition and structural evaluation techniques; serviceability concepts; deterioration modeling; maintenance vs. rehabilitation vs. reconstruction; economic considerations, selection of project alternatives and life cycle cost analysis. Prerequisite: CE 5336 or equivalent

### **CE5344 – CONSTRUCTION METHODS: FIELD OPERATIONS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the methods, equipment, and management techniques used in the construction industry. Topics include equipment operating characteristics, job site safety, and field management. Credit not granted for both CE 4332 and CE 5344. Prerequisite: CE 3343.

### **CE5345 – INFRASTRUCTURE EVALUATION, MAINTENANCE, AND RENEWAL**

**3** Lecture Hours · **0** Lab Hours

This course is designed for engineers and managers involved in infrastructure development, sustainability, and replacement. Topics include asset management, inspection, evaluation, maintenance, and renewal alternatives for waste collection and water distribution systems, surface and subsurface drainage, pavements, bridges, culverts, buildings, and other structures. Credit not granted for both CE 4302 and CE 5345. Prerequisite: consent of instructor.

### **CE5346 – OPEN CHANNEL FLOW**

**3** Lecture Hours · **0** Lab Hours

Open channel hydraulic principles, flow classification, backwater curves, transitions, obstructions, bends, flood flow computations, and urban watershed applications. Credit not granted for both CE 4358 and CE 5346. Prerequisite: CE 3305 and CE 4328; or consent of instructor.

### **CE5347 – ADVANCED HYDROLOGY**

**3** Lecture Hours · **0** Lab Hours

Elements of hydrometeorology, infiltration, soil moisture, hydrographs, rainfall runoff relationships, and effects of these factors with regard to water resources, urban watersheds, flood control, and environmental issues. Prerequisite: CE 3309 and CE 4328.

### **CE5348 – GROUNDWATER HYDROLOGY**

**3** Lecture Hours · **0** Lab Hours

Hydrology and hydrogeology of groundwater to include aquifer and vadose properties and measurements, basic flow systems and solutions, well systems, elementary contaminate transport, water quality, recharge, subsidence, flow system analysis, flow nets, and leaky aquifers. Prerequisite: CE 3309 or consent of instructor.

### **CE5351 – ADVANCED STRUCTURAL ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Advanced analysis of indeterminate beams, frames, trusses, arches, and cables. Credit will not be given for both CE 5351 and CE 4348. Prerequisite: CE 3341.

### **CE5353 – ADVANCED HYDRAULICS**

**3** Lecture Hours · **0** Lab Hours

Flow resistance, St. Venant equations, solution of St. Venant by finite difference methods, dam break problem, water hammer intro to finite elements to open channel flow. Credit will not be granted for both CE 4330 and CE 5353. Prerequisite: CE 5346 and CE 5347; or consent of instructor.

### **CE5354 – WATER RESOURCES PLANNING**

**3** Lecture Hours · **0** Lab Hours

Historical and current water development concepts. Administrative and allocation concerns. General principles and procedures of water resource planning includes regional, multipurpose, economic and systems considerations. Prerequisite: CE 3301, CE 3309, and IE 3312; or consent of instructor.

### **CE5356 – SURFACE WATER QUALITY MODELING**

**3** Lecture Hours · **0** Lab Hours

Contaminant transport and fate in surface water. Engineering methods assessing surface water and transport for water and sediment quality. Modeling dissolved oxygen, chemicals and waterborne substances. Prerequisite: CE 5346.

### **CE5357 – HYDROLOGIC TECHNIQUES**

**3** Lecture Hours · **0** Lab Hours

A study of current hydrologic techniques and methods for the analysis of hydrologic variables necessary in the design of projects such as bridges, culverts, reservoirs. Techniques involve extreme value statistics, model hydrographs, deterministic and stochastic methods for data analysis. Prerequisite: CE 5347 or consent of instructor.

### **CE5358 – SOLID AND HAZARDOUS WASTE MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Sources, chemistry, monitoring, and classifications of hazardous wastes. Discussions of environmental hazards, legal aspects, transportation, detoxification, storage, and disposal and incineration. Credit not granted for both CE 4354 and CE 5358. Prerequisite: CE 3334 or CE 5321 or consent of instructor.

### **CE5359 – GROUNDWATER CONTAMINANT MODELING**

**3** Lecture Hours · **0** Lab Hours

Study of sources and fates of contamination in groundwater. Mathematical modeling of reactive and nonreactive pollutant movement. Aquifer restoration strategies. Prerequisite: CE 5348.



## **CE5360 – UNSATURATED SOIL MECHANICS II**

**3** Lecture Hours · **0** Lab Hours

Advanced principles of unsaturated soil behavior in light of critical state based soil mechanics. Topics: Cam-Clay model for saturated soils, Cam-Clay model for unsaturated soils, and calibration/programming of Barcelona Basic Model for unsaturated soils.

## **CE5361 – DESIGN AND CONSTRUCTION OF ASPHALT CONCRETE**

**3** Lecture Hours · **0** Lab Hours

An in-depth study of the properties of constituent materials for asphalt concrete mixtures. Design methods for Hot-Mixes Asphalt (HMA) and Stone Matrix Asphalt (SMA). Theory and practice of asphalt concrete mix for pavements, including specifications and construction methods for hot-mix asphalt and surface treatments. Maintenance and rehabilitation of flexible pavements. Relationships of material engineering properties to pavement design and performance. Credit not granted for both CE 4336 and CE 5361. Prerequisite: CE 3261 or equivalent.

## **CE5362 – RIGID PAVEMENTS**

**3** Lecture Hours · **0** Lab Hours

Portland cement concrete mix design and production. Paving operations. Saw and seal operations. Subgrade preparation. Base selection. Drainage selection, design and construction. Bonded and unbonded concrete overlays. Whitetopping and ultra-thin whitetopping. Concrete pavement restoration; quality assurance and quality control in concrete pavement construction. Credit not granted for both CE 4337 and CE 5362. Prerequisite: CE 3261 or equivalent.

## **CE5363 – CONSTITUTIVE MODELING OF SOILS**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of elasto-plastic behavior of soils along axisymmetric stress paths, shear strength of soils in light of critical state soil mechanics, and constitutive models to predict soil response under saturated conditions, including Cam Clay and modified Cam Clay models. Prerequisite: CE 3343 or consent of instructor.

## **CE5364 – FOUNDATION ANALYSIS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

The design, construction, and performance of footings, rafts, and piles founded on or in sands, clays, silts, stratified soils, and weak rock. Includes the influence of various geologic terrain on selecting foundation type and constructability, in-situ investigations to determine material design parameters, bearing capacity, and settlement of foundations. Credit not granted for both CE 4321 and CE 5364. Prerequisite: CE 3343.

## **CE5365 – THEORETICAL SOIL MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Theory of consolidation, magnitude, time rate, pore pressure dissipation with variable construction rate and layered soils. Secondary compression, preconsolidation, and preloading. Shear strength of soil. Critical state soil mechanics, dilation and strain-softening in drained shear, pore pressure response in undrained shear, including static liquefaction. Prerequisite: CE 3343 or consent of instructor.

## **CE5366 – SOIL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of mechanical behavior and characterization of soils and earth structures subjected to dynamic loads, including wave propagation in soils, dynamic soil properties, liquefaction of soils, dynamic bearing capacity of shallow foundations, seismic design of retaining walls, and seismic slope stability. Prerequisite: CE 2210 and CE 3343; or consent of instructor.

## **CE5367 – DESIGN OF EARTH STRUCTURES**

**3** Lecture Hours · **0** Lab Hours

Study of the states of stress and analysis techniques associated with cuts, fills, and retaining structures. Includes slope stability, embankment reinforcement, conventional and reinforced earth retaining walls,



excavation bracing, and sheet pile wharf structures. Credit not granted for both CE 4320 and CE 5367. Prerequisite: CE 3343 or consent of instructor.

### **CE5368 – UNSATURATED SOIL MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of the mechanical behavior of unsaturated soils, including stress and volumetric state variables, matrix suction measurements and soil-water characteristic curves, shear-strain-strength and volume change responses, suction-controlled laboratory testing techniques and constitutive modeling. Prerequisite: CE 3343 and CE 5363; or consent of instructor.

### **CE5369 – COMPUTATIONAL GEOTECHNICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to analytical, finite differences, and finite element modeling, analyses of embankments, earth dams, slopes, excavation support systems including soldier pile and diaphragm walls, shallow and deep foundation systems, and other geotechnical structures using different geotechnical software. Prerequisite: CE 3343 or consent of instructor.

### **CE5370 – EXPERIMENTAL SOIL MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of experimental studies of soil behavior, soil properties and their laboratory test methods which include consolidation, direct shear, static triaxial, cyclic triaxial, resonant column, Bender elements and other advanced geotechnical laboratory tests, instrumentation and measurement techniques. Prerequisite: CE 3343 or consent of instructor.

### **CE5371 – SOIL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Fundamental aspects of soil behavior, bonding, crystal structure, surface characteristics, clay mineralogy, soil-water movement, fabric, effective stress concepts, conduction phenomena, consolidation, and shear strength. Prerequisite: CE 3343 or consent of instructor.

### **CE5372 – GEOSYNTHETICS**

**3** Lecture Hours · **0** Lab Hours

Geosynthetics properties and testing, design of geotextiles, geogrids, geonets, and geomembranes for applications in separation, pavement, embankment and retaining wall reinforcement, soil stabilization, filtration, drainage and liquid barrier, construction guidelines and case histories. Credit not granted for both CE 4322 and CE 5372. Prerequisite: CE 3343 or consent of instructor.

### **CE5373 – ENVIRONMENTAL GEOTECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Physical and chemical principles of clays, clay mineralogy, coupled flow, hydraulic conductivity, in situ and laboratory tests, chemical transport, adsorption of chemicals, risk assessment and soil remediation technologies, bioremediation, phytoremediation, electrokinetics and soil washing, waste containment. Prerequisite: CE 5371 or consent of instructor.

### **CE5374 – GROUND IMPROVEMENT**

**3** Lecture Hours · **0** Lab Hours

Introduction and types of ground improvement for different problem soils including soft and expansive soils, shallow and deep soil densification, sand drains and wick drains, chemical modification, chemical binders and mechanisms of ground improvement, different types of grouting, deep mixing, stone columns, soil nailing, ground anchors, geosynthetics, MSE walls, reinforced slopes. Prerequisite: CE 3343 or consent of instructor.

### **CE5375 – GEOTECHNICAL ASPECTS OF LANDFILLS**

**3** Lecture Hours · **0** Lab Hours

Introduction and types of landfills, landfill site selection, siting and configuration, compacted and geosynthetic clay liners, final cover design, landfill settlement and slope stability, post closure uses of landfills, leachate and gas generation, collection and removal system, bioreactor landfills and future trends. Credit not granted for both CE 4323 and CE 5375. Prerequisite: CE 3343 or consent of instructor.

### **CE5376 – GIS IN GEOTECHNICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to GIS, Geographical Information Systems, (ArcInfo/ArcView) based applications in geotechnical engineering, including bore-log database management and profiling, spatial analyses and assessment of liquefaction, ground motion amplification, landslide, and groundwater contamination hazard potentials. Prerequisite: CE 3343 or consent of instructor.

### **CE5377 – CONSTRUCTION PROJECT MANAGEMENT & JOB COSTING**

**3** Lecture Hours · **0** Lab Hours

Financial aspects and job costing of a construction project. Includes project management principles, budgets, cost codes, cost-to-complete, and financial reports specific to the management of a construction company and project control. Credit not granted for both CE 4301 and CE 5377. Prerequisite: consent of instructor.

### **CE5378 – CONSTRUCTION CONTRACTS, SPECIFICATIONS, & ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Types of construction contracts, contractual relationship between general contractor and owner, contractual relationship between general contractor and subcontractors, legal issues in construction administration, insurance, and concepts in value engineering. Reading and evaluating specifications, CSI Master Format. Credit not granted for both CE 4334 and CE 5378. Prerequisite: consent of instructor.

### **CE5379 – CONSTRUCTION COST ESTIMATING**

**3** Lecture Hours · **0** Lab Hours

Types of estimates, development of unit costs, quantity takeoff, cost estimating using manual methods and computerized cost estimating, budgets, and costs. Prerequisite: concurrent enrollment in CE 5386.

### **CE5383 – EXPERIMENTAL STRESS ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Introduction to experimental stress-analysis techniques. Theory and application of mechanical strain gages, electrical strain gages, introduction to photoelastic and thermal techniques, and brittle coatings. Prerequisite: CE 2313.

### **CE5384 – CONCRETE BRIDGE DESIGN**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of concrete bridges for vehicles using American Association of State Highway and Transportation Officials Load and Resistance Factor Design (AASHTO LRFD) specifications. Covers bridge type selection, preliminary design, bridge design loads, bridge deck design, shear design including strut-and-tie model, AASHTO limit states, torsion design, substructure design, and construction practices maintenance issues. Prerequisite: Grade of C or better in CE 4363 or CE 5309.

### **CE5385 – STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Equation of motion for single degree of freedom systems including: free vibration; harmonic and periodic excitations; arbitrary, step and pulse excitations. Dynamic response of multi degree of freedom systems including: free vibration; computation of vibration properties of structures; damping in structures; modal analysis; and response history analysis. Dynamic analysis of systems with distributed mass. Prerequisite: CE 5303 or concurrent registration.

## **CE5386 – CONSTRUCTION PLANNING & SCHEDULING**

**3** Lecture Hours · **0** Lab Hours

Construction productivity, planning, & scheduling of operations, flow charts, linear programming, critical path method (CPM), program evaluation review techniques (PERT), precedence networks. Computer methods. Prerequisite: concurrent enrollment in CE 5379.

## **CE5387 – CONSTRUCTION PRODUCTIVITY**

**3** Lecture Hours · **0** Lab Hours

Evaluation of construction project management's effectiveness. An investigation of the advanced techniques required for improvement of construction projects including time, cost, quality management, preplanning, field evaluation techniques, time-lapse photograph, safety, human factors, and communications. Prerequisite: CE 5379 and CE 5386; or consent of instructor.

## **CE5388 – PIPELINE CONSTRUCTION AND TRENCHLESS TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Pipeline and utility design, construction and renewal. Topics include pipeline infrastructure structural considerations, planning and construction considerations, pipe materials, and trenchless technologies. Credit not granted for both CE 4305 and CE 5388. Prerequisite: graduate standing and consent of instructor.

## **CE5389 – PIPELINE INFRASTRUCTURE ASSET MANAGEMENT AND SUSTAINABILITY**

**3** Lecture Hours · **0** Lab Hours

Pipeline infrastructure inventory, inspection, and life cycle costs. Topics include pipeline deterioration parameters, asset management technologies, risk assessment, government regulations and case studies. Credit not granted for both CE 4306 and CE 5389. Prerequisite: graduate standing and consent of instructor.

## **CE5391 – ADVANCED STUDIES IN CIVIL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual studies of advanced topics under the supervision of a professor or professors. Graded F, P, R. Prerequisite: consent of instructor.

## **CE5392 – SPECIAL TOPICS IN AIR POLLUTION**

**3** Lecture Hours · **0** Lab Hours

Sources, transport, fate, characteristics, and control of air contaminants. May be repeated for credit when topics vary. Prerequisite: Graduate standing and consent of instructor  
Topic 1 - Air Pollution Chemistry and Meteorology Designed to give students an understanding of how pollutants react and travel in the atmosphere. Topics include: chemistry of ground-level ozone formation, ozone layer depletion, acid deposition, fine particle formation, and climate change; meteorological variables impacting pollutant transport in the atmosphere, such as atmospheric stability, turbulence and wind speed.  
Topic 2 Air Quality Modeling Mathematical models for predicting air pollutant transport and transformation in the atmosphere, to evaluate health impacts and potential control strategies. The course covers 4 types of air quality models: box models, photochemical grid models, Gaussian dispersion models (major emphasis), and receptor models.  
Topic 3 A Transportation and Air Quality Generation of pollutants in gasoline and diesel engines. Emission estimation via measurement and modeling (MOBILE 6). Prediction of pollutant concentrations near roadways. Vehicle emission control using alternative engine design, alternate fuels, add-on technology. Travel demand management and transportation control measures for emission reduction.  
Topic 4 - Air Pollution Control System Design Design of air pollution control systems for stationary sources, including particle control technologies (cyclones, electrostatic precipitators, fabric filters and wet scrubbers) and gaseous control technologies (incinerators, adsorption systems, absorption systems, biofilters, nitrogen oxide controls, mercury controls, and carbon dioxide controls).

## **CE5395 – MASTER'S PROJECT**

**3** Lecture Hours · **0** Lab Hours

Non-thesis master's degree candidates with approval to include a project in their program. Graded F, P, R. Prerequisite: consent of instructor and approval of Civil Engineering Graduate Advisor.

### **CE5398 – THESIS**

3 Lecture Hours · 0 Lab Hours

Research and preparation pertaining to the master's thesis. Graded F, R.

### **CE5695 – MASTER'S PROJECT**

6 Lecture Hours · 0 Lab Hours

Non-thesis master's degree candidates with approval to include a project in their program. Graded F, P, R. Prerequisite: consent of instructor and approval of Civil Engineering Graduate Advisor.

### **CE5698 – THESIS**

6 Lecture Hours · 0 Lab Hours

Research and preparation pertaining to the master's thesis. Graded F, P, R.

### **CE6197 – RESEARCH IN CIVIL ENGINEERING**

1 Lecture Hour · 0 Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6297 – RESEARCH IN CIVIL ENGINEERING**

2 Lecture Hours · 0 Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6300 – ADVANCED TOPICS IN CIVIL ENGINEERING**

3 Lecture Hours · 0 Lab Hours

Topics of current interest in the field of civil engineering. The subject title is listed in the class schedule and in the student's record. Topics vary. May be repeated for credit when topic changes. Prerequisite: consent of instructor.

### **CE6306 – PUBLIC TRANSIT PLANNING & OPERATIONS**

3 Lecture Hours · 0 Lab Hours

Theory and application of technologies used for transit demand analysis, routing, scheduling, evaluation, crew assignment, maintenance strategies, and management. Land-use impact on public transit policy and operation is also introduced. Prerequisite: CE 4311 or CE 5337 or equivalent.

### **CE6308 – ANALYTICAL MODELS IN TRANSPORTATION**

3 Lecture Hours · 0 Lab Hours

Development and analysis of mathematical models in transportation. Topics include travel demand, trip generation, distribution, mode choice, assignment, plan evaluation, spatial distribution, traffic control and flow models; principles of behavioral, econometric, deterministic, probabilistic, and chaotic simulation models, and their applications. Prerequisite: CE 4311 or CE 5337.

### **CE6309 – TRAFFIC FLOW THEORY**

3 Lecture Hours · 0 Lab Hours

Speed, density relationships of vehicular traffic flow; statistical aspects of traffic events and queuing processes; deterministic models and simulation models of traffic flow behavior; applications of flow theory to traffic problem solutions. Prerequisite: CE 5330 or equivalent.

### **CE6311 – ADVANCED FOUNDATION DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Subsurface investigations; advanced design of mat foundations, retaining walls, reinforced retaining walls, anchor tiebacks, driven piles, and piers; destructive and nondestructive tests on deep foundations; group piles, laterally loaded piles, and design of foundations in expansive soils. Prerequisite: CE 4321 or CE 5364.

### **CE6312 – IN-SITU TESTING**

**3 Lecture Hours · 0 Lab Hours**

Site characterization, in-situ testing procedures, and soil property interpretation methods for standard penetration tests, cone penetration tests utilizing friction cone, piezocone, and seismic cone, dilatometer, vane shear, pressure meter, and bore hole shear tests, non-destructive tests for pavement subgrade characterization. Prerequisite: CE 3143 or CE 5370 or consent of instructor.

### **CE6313 – DESIGN OF EARTH DAMS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to dams and levees, failure and damage analysis, erosion, seepage, filter, drainage design, foundation preparation for problematic subsoil conditions, seepage induced slope stability issues, desiccation crack and erosion control, numerical modeling and case studies, seismic issues. Prerequisite: CE 5367 or consent of instructor.

### **CE6314 – STORMWATER MODELING**

**3 Lecture Hours · 0 Lab Hours**

Hydrologic modeling methods and issues, urban watershed modeling, methods of system analysis; analysis of hydrologic components as linear and nonlinear systems, watershed response, kinematic wave; and model parameters optimization. Prerequisite: CE 5346 and CE 5347; or consent of instructor.

### **CE6316 – SEDIMENT TRANSPORT**

**3 Lecture Hours · 0 Lab Hours**

Sourcing the sediment influx, the settling velocity, Shields critical shear stress, design with critical shear, bedload transport equations, suspended load transport, total transport equation, regime theory as index of stability. Prerequisite: CE 4358 or CE 5346; and CE 5347.

### **CE6325 – ADVANCED PHYSICAL-CHEMICAL PROCESSES**

**3 Lecture Hours · 0 Lab Hours**

The course represents the fundamentals and applications of various advanced physical and chemical unit operations and processes for controlling drinking water quality. The course will cover 1) general overview on the standard, regulations, and goals of drinking water quality, 2) detailed discussion of the theory, design, and operation of advanced physical and chemical unit processes, including but not limited to, sorption, centrifugation, osmotic pressure, membrane separation, chemical oxidation and advanced oxidation, UV technology, and disinfection, and 3) post treatment issues. Prerequisite: CE 5318 and CE 5319.

### **CE6350 – ADVANCED CONCRETE DESIGN II**

**3 Lecture Hours · 0 Lab Hours**

Detailing of connections for ductility demands, modified compression field theory, strut and tie modeling of systems and areas, and design of shear walls and hybrid construction. Behavior of reinforced concrete structures, with emphasis on ductility and detailing. Prerequisite: CE 5312.

### **CE6352 – ADVANCED FINITE ELEMENT METHOD**

**3 Lecture Hours · 0 Lab Hours**

Weak and mixed formulations; Eulerian and Lagrangian mesh formulations; plane stress and plane strain, axisymmetric element equations; two dimensional elasticity equations; 2-D and 3-D isoparametric formulations; error analysis and convergence criteria for linear/nonlinear problems; nonlinear-geometric, materials, and contact formulation; cyclic plasticity formulation. Prerequisite: CE 5303.

## **CE6354 – REPAIR AND REHABILITATION OF STRUCTURES**

**3** Lecture Hours · **0** Lab Hours

Causes of distress, evaluation methods for condition, strength, serviceability; repair materials, repair techniques, and quality control methods for repair of concrete. Criteria for rehabilitation; retrofit techniques for change in function, loading, and seismic forces. Prerequisite: CE 5311 and CE 5312.

## **CE6355 – EARTHQUAKE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Earthquake characteristics; design of structures to resist earthquakes. Characterization of earthquakes for design. Development of design criteria for elastic and inelastic structural response. Seismic performance of various structural systems. Prediction of nonlinear seismic behavior. Basis for code design procedures. Preliminary design of steel and reinforced concrete structures. Evaluation of earthquake vulnerability of existing structures and rehabilitation of seismic deficiencies. Prerequisite: CE 5385.

## **CE6356 – ENERGY METHODS**

**3** Lecture Hours · **0** Lab Hours

Principles of mechanics; elastic beams and frames; variational method: curved cantilever beams; Rayleigh Ritz method; special form of Euler equation; differential equation for beam; variation of double integral; first variation of triple integral. Deformable bodies using indicial notation; buckling using energy method; Lagrange and Hamilton Principles; theory and analysis of plates; theory and buckling; and theory of vibration. Prerequisite: CE 5315.

## **CE6357 – STRUCTURAL STABILITY**

**3** Lecture Hours · **0** Lab Hours

Buckling of columns; approximate method of analysis for buckling problems; beam columns; structural system stability (buckling of frames); lateral torsional buckling; buckling of plates; and buckling of axially compressed cylindrical shells. Prerequisite: CE 5303 or concurrent registration therein.

## **CE6358 – ADVANCED ENGINEERING ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Introduction to matrices; vector spaces; tensors, Eigenvalue problems. Solution to discrete systems: steady state problems and propagation problems. Solution of continuous systems: differential formulation; variational method; and weighted residual methods. Solution of linear and nonlinear static equilibrium equations. Prerequisite: CE 5315 and MATH 3319.

## **CE6359 – PLATES AND SHELLS**

**3** Lecture Hours · **0** Lab Hours

Introduction to differential geometry; equilibrium of plate and shell elements; equilibrium equations for shell revolutions; compound shells; nonsymmetrical loaded shell; anti-symmetrical loaded shell; membrane theory; constitutive law; analysis of plates and shells using energy method; and bending and stability of plates and shells. Prerequisite: CE 5315.

## **CE6360 – THEORY OF ELASTICITY**

**3** Lecture Hours · **0** Lab Hours

Introductory mathematical concepts: vector calculus; tensor algebra. Theory of deformation; strain displacement relations in orthogonal curvilinear coordinate systems. Theory of stress; differential equation of equilibrium in curvilinear spatial coordinates; three dimensional equations of elasticity; nonlinear constitutive relationship; plane theory of elasticity; and plane elasticity in polar coordinates. Prerequisite: CE 5315.

## **CE6391 – ADVANCED PROJECTS IN CIVIL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Projects related to advanced topics in graduate area. Graded F, P, R. Prerequisite: consent of instructor and approval of Civil Engineering Graduate Advisor.

### **CE6397 – RESEARCH IN CIVIL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Preparation of a doctoral dissertation in civil engineering. Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree.

### **CE6697 – RESEARCH IN CIVIL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Preparation of a doctoral dissertation in civil engineering. Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree.

### **CE6997 – RESEARCH IN CIVIL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individual supervised research projects. May be repeated for credit. Graded F, P, R. Prerequisite: consent of instructor and approval of Supervising Committee Chair.

### **CE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Preparation of a doctoral dissertation in civil engineering. Graded F, P, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree.

### **CE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Computer Science and Engineering

College of Engineering

**Chair Hong Jiang**

**Chair Fillia Makedon**

Web [www.cse.uta.edu](http://www.cse.uta.edu)

Email [info@cse.uta.edu](mailto:info@cse.uta.edu)

Phone 817.272.3785

Fax 817.272.3784

**300 Nedderman Hall**

---

### Degrees / Certificates

#### Master's Degrees

Computer Engineering, M.S.

Computer Science, M.S.

Software Engineering, M.SWEN.

#### Doctoral Degrees

Computer Engineering, B.S. to Ph.D.

Computer Engineering, Ph.D.

Computer Science, B.S. to Ph.D.

Computer Science, Ph.D.

Mathematical Sciences, Computer Science, Ph.D.

#### Certificates

Computer Science Unmanned Vehicle Systems Certificate

---

### Graduate Faculty

[Sajib Datta](#)

[Hong Jiang](#)

[Song Jiang](#)

[Taylor Johnson](#)

[Jiang Ming](#)

[Jia Rao](#)

#### Professor

[Ishfaq Ahmad](#)

[Upendranath Chakravarthy](#)

[Gautam Das](#)

[Sajal Das](#)

[Chris Ding](#)

[Ramez Elmasri](#)

[Farhad Kamangar](#)

[Mohan Kumar](#)

[David Kung](#)



**Fillia Makedon**  
**Lynn Peterson**  
**Roger Walker**  
**Gergely Zaruba**

**Associate Professor**

**Vassilis Athitsos**  
**Hao Che**  
**Leonidas Fegaras**  
**Jean Gao**  
**Heng Huang**  
**Manfred Huber**  
**Yu Lei**  
**Chengkai Li**  
**Donggang Liu**  
**Yonghe Liu**  
**Bob Weems**  
**Matthew Wright**

**Assistant Professor**

**Christoph Csallner**  
**Junzhou Huang**  
**Gian-Luca Mariottini**

**Senior Lecturer**

**Darin Brezeale**  
**Bahram Khalili**  
**David Levine**  
**James Mike O'Dell**

---

## Graduate Advisors

**Sajib Datta**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science Unmanned Vehicle Systems Certificate*  
*Software Engineering, M.SWEN.*

**Ramez Elmasri**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Bahram Khalili**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**James Mike O'Dell**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

---

## Department Information

### Courses

# Department Information

#### Objective

#### Admission

- [Fellowships](#)

#### Continuation

#### Degree Requirements

- [Master of Science in Computer Science - Thesis](#)
- [Master of Science in Computer Science and Engineering - Thesis](#)
- [Master of Science in Computer Science - Non Thesis](#)
- [Master of Science in Computer Science and Engineering](#)
- [B.S. to Ph.D. Track](#)
- [Ph.D. \(Computer Science\)](#)
- [Ph.D. \(Computer Science and Engineering\)](#)

## Objective

The purpose of the graduate programs in Computer Science and Computer Science and Engineering is to facilitate the student's continued professional and scholarly development. The Master of Science (M.S.) programs are designed to extend the student's knowledge and emphasize a particular area of concentration. The Master of Software Engineering (M.SW.Engr.) program is designed to provide the student with the opportunity for professional development in the software engineering field. Students who have completed a bachelor's degree in CS, CSE wishing to pursue a doctoral degree may apply for admission in the B.S. to Ph.D. track. The admission requirements to this highly competitive track are the same as those for "advanced admission" (see Special Admissions Programs). The Doctor of Philosophy (Ph.D.) programs are designed to prepare the student to conduct research and development in an area of concentration.

Typical areas of concentration include

1. Computer Systems: parallel processing, quality-of-service and resource management in distributed systems, scheduling and load balancing for parallel and distributed systems, tools for parallel programming, performance evaluation, fault-tolerant computing, interconnection networks, multimedia systems, real-time systems, memory system design;
2. Intelligent Systems: neural networks, machine learning, planning, scientific visualization, pattern recognition, natural language processing, multi-agent environments, decision support;
3. Software Engineering: requirements engineering, incremental delivery, conceptual modeling, scenario-based techniques, formal specifications, object-oriented software engineering, design methodologies, software testing, software maintenance, software re-engineering, software processes, real-time systems;
4. Database: temporal databases, object-oriented databases, database models and languages, distributed database systems, indexing and hashing techniques, conceptual modeling, data security, logic and databases, query optimization, relational design theory, user interfaces, data repositories.
5. Communications: networks, wireless communication, distributed computing, mobile computing, multimedia systems.

## Admission

The CSE graduate admission committee bases its decision for graduate admission on the following criteria (in no specific order):

1. An overall GPA of 3.0 or higher in undergraduate coursework.
2. A GPA of 3.2 or higher on CS/CSE related coursework in the last two years of undergraduate degree.
3. Relevance of the student's degree (background) to the CSE curriculum.
4. Rigor of the student's bachelor's degree. A four-year degree is considered more rigorous than a three-year degree.
5. Reputation of the university/college that the student has received his/her previous degrees from.
6. GRE General Test: Admitted students typically earn the following scores on the GRE
  - a. GRE quantitative score of at least 700
  - b. GRE verbal score of at least 400
  - c. A sum of verbal and quantitative GRE scores (i.e. scores from parts 6a and 6b combined) of at least 1150 for MS and 1250 for Ph.D. applicants. An applicant can have a minimum score of 700 on the quantitative GRE or a minimum score of 400 on the verbal GRE, but not both. A passing score on the Fundamentals of Engineering (FE) exam is also given consideration.

Applicants for the MS degree with (or completing in the near future) a BSCSE from UT Arlington and a GPA of at least 3.2 should contact the graduate advisor regarding a GRE waiver. Those with a GPA of at least 3.5 should contact the graduate advisor regarding nomination for Advanced Admission (i.e. admission without application and fee). The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees in CS or CSE (with GPA of 3.2 or above) from reputable universities with an ABET accredited program or other select universities subject to graduate advisor's approval.

7. For Ph.D. students, the following are optional. Meeting these criteria will improve both a student's chances of securing admission and receiving financial support.
  - a. Publication in scholarly conferences/journals.
  - b. A percentile of 80 score or higher on the Computer Science subject GRE.

The above criteria are used as follows in relevance to the three possible admission decisions, i.e., *Unconditional Status*; *Probationary Status*; and *Denied*.

1. *Unconditional Status*: Applies to an applicant who meets the first six criteria above to a degree satisfactory to the graduate admissions committee.
2. *Probationary Status*: Applies to an applicant who meets at least five of the six criteria to a degree satisfactory to the graduate admissions committee and whose record shows promise for success in the program or to an applicant who does not fulfill all the deficiency course requirements.
3. *Denied*: Applies to an applicant who does not meet five of the first six criteria to a degree satisfactory to the graduate admissions committee.

### Requirements for BS to PhD accelerated program

1. An undergraduate degree in CS or CSE or Equivalent.
2. An overall GPA of 3.0 or higher in undergraduate coursework.
3. A 3.2 grade point average (on a 4.0 scale) on the last two years of undergraduate coursework. In particular, performance on CS/CSE related courses are emphasized.
4. Rigor of the student's Bachelors degree. A three-year degree is not considered rigorous enough.
5. Reputation of the University/College that the student has received his/her previous

degrees from.

- a. GRE quantitative score - 700
  - b. GRE verbal score - 400
  - c. The department does not require the advanced computer science test. A passing score on the Engineering-in-Training (EIT) exam is also given consideration for admission decisions.
6. A sum of verbal and quantitative scores of 1150 or more on the GRE\* :
7. (International Applicants)  
A Test of English as a Foreign Language (TOEFL) score - 230

### Waiver of the Graduate Record Examination

Upon recommendation of the Graduate Advisor, outstanding UT Arlington graduates may qualify for waiver of the requirements for the Graduate Record Examination (GRE). To qualify, the applicant must meet the following minimum requirements:

1. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree.
  - a. as calculated for admission to the Graduate School ;
  - b. overall;
  - c. in the major field; and
  - d. in all upper-division work.
2. The student's UT Arlington grade-point average must equal or exceed 3.0 in the following calculations:

Applicants qualifying for waiver of GRE who do not qualify for advanced admission, must comply with all other requirements for admission, i.e., submitting the application for admission, paying fees, providing official transcripts from other institutions, and meeting any requirements established by the admitting graduate program. The GRE waiver must be recommended by the Graduate Advisor at the time of admission. The waiver of GRE program applies to applicants for master's degree programs only. Some programs may require higher grade-point averages to qualify and some will not waive the GRE under any circumstances.

Additionally, some programs may waive the GRE requirement for non-UT Arlington graduates who seek admission as a master's student and meet qualifications listed in those programs' specific admission requirements. Such waivers are not offered by all graduate programs.

### Fellowships

The basis for granting a Fellowship to a student will be as follows:

- The student is admitted without provisional requirements.
- Relative standing with respect to other qualified applicants.

### Continuation

To fulfill its responsibility to graduate highly qualified professionals, the Department has established certain requirements that must be met by students continuing in the graduate programs. In addition to the requirements of the Graduate School listed elsewhere in the catalog, the Computer Science and Engineering Department has established additional requirements detailed in its Guide to Graduate Programs.

## **Degree Requirements**

### **Master of Science in Computer Science - Thesis**

The Master of Science in Computer Science degree program is designed to develop the scholarship and research skills of the student. Thirty-one credit hours, which include one orientation seminar credit and six thesis credits, are required.

### **Master of Science in Computer Science and Engineering - Thesis**

The Master of Science in Computer Science and Engineering, which is intended for students with a baccalaureate degree in engineering, requires 31 credit hours of which one is orientation seminar and six are thesis credits, and is designed to develop the scholarship and research skills of the student.

### **Master of Science in Computer Science - Non Thesis**

The Master of Science in Computer Science non-thesis options provide professional development in computer science. The structured option requires 37 credit hours of which one is orientation seminar.

### **Master of Science in Computer Science and Engineering**

The Master of Science in Computer Science and Engineering non-thesis options are intended for students with an engineering baccalaureate degree. The structured option requires 37 credit hours of which one is orientation seminar.

### **B.S. to Ph.D. Track**

The B.S. to Ph.D. track in Computer Science/Computer Science Engineering requires 30 credit hours with 21 hours of diagnostic requirements and nine hours of advanced research-oriented coursework. This is in addition to the Ph.D. requirements.

### **Ph.D. (Computer Science)**

The Ph.D. in Computer Science continues the development of the student's research capability. Coursework selection in each student's program is designed to support the dissertation area selected by the student.

A minimum of two semesters of full-time study is required during the dissertation phase. There is no foreign language requirement.

### **Ph.D. (Computer Science and Engineering)**

The Ph.D. in Computer Science and Engineering is available to students with a prior degree in engineering. It contains essentially the same requirements as the Ph.D. (Computer Science) degree except that it permits interdisciplinary research between Computer Science and one or more of the various engineering disciplines.

## **CS Courses**

### **CS6352 – PERF OF COMPUTE**

3 Lecture Hours · 0 Lab Hours

### **CS6359 – OBJ ORIENT DESI**

3 Lecture Hours · 0 Lab Hours

## **CS6378 – ADV OPER SYS**

**3** Lecture Hours · **0** Lab Hours

## **CSE Courses**

### **CSE5191 – INDIVIDUAL STUDY IN COMPUTER SCIENCE**

**1** Lecture Hour · **0** Lab Hours

Topics dealing with special problems in Computer Science on an individual instruction basis. May be repeated for credit.

### **CSE5194 – ORIENTATION SEMINAR**

**1** Lecture Hour · **0** Lab Hours

Presentation of computer science research by CSE faculty, students, and invited speakers. Preparation of program of work.

### **CSE5301 – DATA ANALYSIS & MODELING TECHNIQUES**

**3** Lecture Hours · **0** Lab Hours

Concepts and techniques for performing experiments and analyzing their results. Topics cover fundamental statistics, probability and data-representation concepts, interference through hypothesis testing, information theory, queuing models, and selected topics such as capacity planning and bottleneck analysis, clustering and classification, and hidden Markov models with computer science applications as examples.

### **CSE5306 – DISTRIBUTED SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Issues and challenges in distributed systems, including: communication, distributed processes, naming and name services, synchronization, consistency and replication, transactions, fault tolerance and recovery, security, distributed objects, and distributed file systems.

### **CSE5307 – PROGRAMMING LANGUAGE CONCEPTS**

**3** Lecture Hours · **0** Lab Hours

Study and evaluation of concepts in programming language for modern computer systems. Programming projects are selected from string-based, symbolic, algorithmic, and object-oriented languages.

### **CSE5311 – DESIGN AND ANALYSIS OF ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

Techniques for analyzing upper bounds for algorithms and lower bounds for problems. Problem areas include: sorting, data structures, graphs, dynamic programming, combinatorial algorithms, introduction to parallel models.

### **CSE5314 – COMPUTATIONAL COMPLEXITY**

**3** Lecture Hours · **0** Lab Hours

Sequential and parallel complexity classes (e.g., NP-complete and P-complete) and representative problems in languages, logic and graphs. Reduction techniques. Approximate solutions. Complexity hierarchies.

### **CSE5315 – NUMERICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

Selected topics from the theory and practice of using automatic digital computers for approximating arithmetic operations, approximating functions, solving systems of linear and non-linear equations, and

solving ordinary and partial differential equations.

### **CSE5316 – MODELING, ANALYSIS, AND SIMULATION OF COMPUTER SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Mathematical formalism and techniques used for computer system modeling and analysis. Reviews probability, transform theory, coding theory, and Petri nets. Topics may include knowledge based modeling, validation procedures, various simulation techniques for stochastic process and real-time distributed systems.

### **CSE5317 – DESIGN AND CONSTRUCTION OF COMPILERS**

**3** Lecture Hours · **0** Lab Hours

Review of programming language structures, translation, and storage allocation. Introduction to context-free grammars and their description. Design and construction of compilers including lexical analysis, parsing and code generation techniques. Error analysis and simple code optimizations will be introduced.

### **CSE5318 – APPLIED GRAPH THEORY AND COMBINATORICS**

**3** Lecture Hours · **0** Lab Hours

Connected and disconnected graphs; trees; graph planarity; Hamiltonian circuits and Euler tours; coloring; flow and graph optimization algorithms, fundamentals of combinatorics; generating functions and recurrence relations; inclusion-exclusion principle; applications in telecommunications; mobile computing, parallel processing and multiprocessor architectures.

### **CSE5319 – SPECIAL TOPICS IN THEORY & ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5320 – SPECIAL TOPICS IN SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5321 – SOFTWARE TESTING**

**3** Lecture Hours · **0** Lab Hours

Study of software quality assurance, software testing process, methods, techniques and tools. Topics include formal review techniques, black box testing, white box testing, integration testing, acceptance testing, regression testing, performance testing, stress testing, and testing of object-oriented software. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5322 – SOFTWARE DESIGN PATTERNS**

**3** Lecture Hours · **0** Lab Hours

Study and application of object-oriented software design patterns to software development and maintenance in the object-oriented paradigm. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5323 – SOFTWARE ENGINEERING PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Introduces software lifecycle models, process disciplines, project management concepts, and applies them by mastering the Personal Software Process (PSP).

### **CSE5324 – SOFTWARE ENGINEERING: ANALYSIS, DESIGN, AND TESTING**

**3** Lecture Hours · **0** Lab Hours

Motivations, principles, and goals of software engineering; technical aspects of software projects, including:



review of structured analysis and structured design, emphasis on object-oriented methods of requirements analysis and specification, design, and implementation; software testing concepts; team project.

### **CSE5325 – SOFTWARE ENGINEERING: MANAGEMENT, MAINTENANCE, AND QUALITY ASSURANCE**

**3** Lecture Hours · **0** Lab Hours

Issues and principles for software management; managerial and support aspects of software projects, including: processes, estimation techniques, planning and scheduling, risk analysis, metrics, and quality assurance. Other topics include: configuration management, verification and validation, and maintenance; team project. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5326 – REAL-TIME SOFTWARE DESIGN**

**3** Lecture Hours · **0** Lab Hours

Specification, design, and analysis of real-time systems including real-time logics and decidability of real-time conditions; real-time scheduling approaches, system requirement specification; procedural and object-oriented methods; specialized analysis techniques for distributed and for control applications; team project. Prerequisite: CSE 5324 or concurrent enrollment.

### **CSE5327 – TELECOMMUNICATIONS SOFTWARE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

General understanding and classification of telecommunications systems and applications. Issues relating to the analysis, design, implementation, and testing of telecommunications software. Prerequisite: CSE 5324 and 5344.

### **CSE5328 – SOFTWARE ENGINEERING TEAM PROJECT I**

**3** Lecture Hours · **0** Lab Hours

Apply the knowledge and skills gained in other software engineering courses to synthesize a solution to a significant and realistic software development team project. Participate in activities including: proposal writing, problem analysis, software requirements specification, project planning, software design, implementation, software quality assurance, software testing, integration, and demonstration. Required for and open only to Master of Software Engineering degree candidates. Prerequisite: one of 5321, 5322, 5325.

### **CSE5329 – SOFTWARE ENGINEERING TEAM PROJECT II**

**3** Lecture Hours · **0** Lab Hours

Apply the knowledge and skills gained in other software engineering courses to synthesize a solution to a significant and realistic software development team project. Participate in activities including: proposal writing, problem analysis, software requirements specification, project planning, software design, implementation, software quality assurance, software testing, integration, and demonstration. Required for and open only to Master of Software Engineering degree candidates. Prerequisite: one of 5321, 5322, 5325.

### **CSE5330 – DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Database system architecture; management and analysis of files, indexing, hashing, and B-trees; the relational model and algebra; the SQL database language; database programming techniques, database design using Entry-Relationship, extended E-R, and UML modeling; basics of normalization. Introduction to database security, query processing and transaction management. Prerequisite: CSE 2320.

### **CSE5331 – DBMS MODELS AND IMPLEMENTATION TECHNIQUES**

**3** Lecture Hours · **0** Lab Hours

DBMS system implementation techniques, including query optimization, transaction processing, concurrency control, buffer management and recovery. Object-oriented, object-relational and XML databases. Introduction to advanced database models, such as active, distributed, temporal, spatial and data warehousing. Prerequisite: CSE 3330/CSE 5330, or consent of instructor.



### **CSE5333 – DISTRIBUTED AND PARALLEL DATABASES**

**3** Lecture Hours · **0** Lab Hours

Distributed database system architecture and design, distributed transaction management and database interoperability; distributed query processing; parallel database architectures and techniques; and parallel algorithms for database operations. Prerequisite: CSE 5330 or consent of instructor.

### **CSE5334 – DATA MINING**

**3** Lecture Hours · **0** Lab Hours

Preparing data for mining, using preprocessing, data warehouses and OLAP; data mining primitives, languages and system architecture; data mining techniques including association rule mining, classification/prediction and cluster analysis.

### **CSE5335 – WEB DATA MANAGEMENT & XML**

**3** Lecture Hours · **0** Lab Hours

XML has become an important standardization for data representation and information exchange among Internet co-operative applications. This course provides an in depth study of the area of web data management with an emphasis on XML standards and technologies. The course primarily covers the state of the art in designing and building web applications and services, primarily focusing on issues and challenges that revolve around the management and processing of XML data. Topics include: Web programming, XML standards, XML query languages, native XML storage management, XML on relational databases, XML indexing, Web Services, metadata management with RDF, and Semantic Web. Prerequisite: CSE 3330/CSE 5330, or consent of instructor.

### **CSE5336 – STREAM DATA MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course provides a study of special-purpose data management systems for processing stream data generated by sensors, RFIDs (Radio Frequency Identifications), and other ubiquitous devices. Topics include: Analysis of the differences between processing and managing stored data and stream data (including events). Using sliding windows to unblock blocking operations for continuous queries. Approximation techniques for continuous aggregation queries. Quality of Service (QoS) requirements of stream and complex event processing applications and their impact on various aspects of processing. Modeling continuous queries, scheduling strategies for (multiple) continuous queries, adaptive query plans, and load shedding to trade-off QoS requirements. Design and implementation of stream processing systems. Prerequisite: CSE 3330 or CSE 5330, or consent of instructor.

### **CSE5339 – SPECIAL TOPICS IN DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5343 – REAL-TIME DATA ACQUISITION AND CONTROL SYSTEMS**

**2** Lecture Hours · **3** Lab Hours

Advanced course in design of microcomputer-based systems. Emphasis is on the application of state-of-the-art microprocessors, microcomputers, and other LSI and VLSI components to real-time, interactive, and/or embedded systems. Prerequisite: CSE 5442 or consent of instructor.

### **CSE5344 – COMPUTER NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Study of computer network architectures, protocols, and interfaces. The OSI reference model and the Internet architecture will be discussed. Networking techniques such as multiple access, packet/cell switching, and internetworking will be studied. Discussion will also include end-to-end protocols, congestion control, high-speed networking, and network management. Emphasis will be on Internet and ATM. Prerequisite: CSE 3320 or consent of instructor.

## **CSE5345 – FUNDAMENTALS OF WIRELESS NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of wireless networks, including wireless channels, coding and modulation, cellular architectures and protocols, multiple division techniques, multiple access control, wireless LAN/PAN, mobile IP and wireless internet, TCP over wireless, ad-hoc networks, sensor networks. Prerequisite: CSE 4344/5344 or equivalent course.

## **CSE5346 – NETWORKS II**

**3** Lecture Hours · **0** Lab Hours

This course provides an in depth study and comparison of the two primary networking paradigms, Internet/broadcast and switched, using two technologies, IPv6 and ATM, as representative examples. The course is implementation-oriented, focusing on issues such as routing, broadcast, multicast, mobility, network configuration, and quality of service. Prerequisite: CSE 5344.

## **CSE5347 – TELECOMMUNICATION NETWORKS DESIGN**

**3** Lecture Hours · **0** Lab Hours

A study of advanced telecommunication systems and networks, internet working functions, networking architectures and their convergence towards an IP/Ethernet centric architecture. Prerequisite: CSE 4344, CSE 5344, or CSE 5346.

## **CSE5348 – MULTIMEDIA SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Representations and techniques for processing, communicating, and compression of text, audio, graphics, and video in real time. Project integrating these topics. Prerequisite: CSE 3320.

## **CSE5349 – SPECIAL TOPICS IN NETWORKING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

## **CSE5350 – COMPUTER ARCHITECTURE II**

**3** Lecture Hours · **0** Lab Hours

A study of advanced uniprocessor and basic multiprocessor systems. Topics may include memory management systems, pipelined processors, array and vector processors, and introduction to architecture of multiprocessor systems. Prerequisite: CSE 3322 or consent of instructor.

## **CSE5351 – PARALLEL PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Covers the theory and practice of parallel processing. Theoretical topics include: abstract models and algorithms for shared memory computation (PRAM); algorithms for various topologies such as meshes and hypercubes; efficiency and speedup analysis. Problem areas include data structures, numerical methods, graphs, combinatorics. Practical topics include synchronization, routing, scheduling, parallelizing serial computations, programming languages. Includes programming exercises using one or more concurrent programming languages, on one or more parallel computers. Prerequisite: CSE 3320 or consent of instructor.

## **CSE5353 – DISTRIBUTED COMPUTING**

**3** Lecture Hours · **0** Lab Hours

Programming languages, support components, coordination models, and fundamental algorithms for distributed and clustered systems. Prerequisite: CSE 5306.

## **CSE5355 – COMPUTER SYSTEM PERFORMANCE EVALUATION**

**3** Lecture Hours · **0** Lab Hours

Queueing network models and simulation for studying the performance of overall computer systems. Theory and applications of Markov process, Random Walk, Renewal Process, and Birth and Death Process. Topics also include bottleneck identification, capacity planning, hardware selection and upgrade, and performance tuning. Data collection, presentation and interpretation, benchmarking and the proper choice of performance metrics will be emphasized. Prerequisite: CSE 3320.

### **CSE5359 – SPECIAL TOPICS IN SYSTEMS & ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5360 – ARTIFICIAL INTELLIGENCE I**

**3** Lecture Hours · **0** Lab Hours

Introduction to the methods, concepts and applications of artificial intelligence, including knowledge representation, search, theorem proving, planning, natural language processing, and study of AI programming languages. Prerequisite: CSE 2320 and 3315, or consent of instructor.

### **CSE5361 – ARTIFICIAL INTELLIGENCE II**

**3** Lecture Hours · **0** Lab Hours

Continuation of artificial intelligence methods and techniques, including uncertainty reasoning, machine learning, perception, and advanced topics in knowledge representation, search and planning. Emphasis on design and implementation of AI solutions. Prerequisite: CSE 5360 or consent of instructor.

### **CSE5362 – SOCIAL NETWORKS AND SEARCH ENGINES**

**3** Lecture Hours · **0** Lab Hours

Social networks, Search Engines, Recommendation systems, Question & Answering systems are web-enabled Information Technology main stream. This course covers the foundations of these technology including text/query processing, web content analysis, basic graph theory, random walk, PageRank, power law distribution, random graphs, small world, growth models, and network diffusion. Prerequisite: CSE 5311.

### **CSE5364 – ROBOTICS**

**2** Lecture Hours · **3** Lab Hours

An introduction to robotics and the design and programming of autonomous robot systems. Topics include basic kinematics, dynamics, and control, as well as sensors, knowledge representation, and programming techniques. Coursework includes individual and group projects involving the building and programming of simulated and real robots. Prerequisite: CSE 2320 and CSE 3442.

### **CSE5365 – COMPUTER GRAPHICS**

**3** Lecture Hours · **0** Lab Hours

Input/output devices and programming techniques suitable for the visual representation of data and images. Prerequisite: CSE 1320, analytic geometry and linear algebra, or consent of instructor.

### **CSE5366 – DIGITAL SIGNAL PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Introduction to principles and applications of digital signal processing. Topics include: analysis of signals and systems, Fourier and Z transforms, digital filter design techniques (FIR and IIR), autoregressive (AR) and autoregressive moving average (ARMA) modeling. Applications to science and engineering include: financial predictions and processing of digital music. Laboratory work includes some programming and use of high quality library routines and packages such as Mathematica, Matlab. Prerequisite: CSE 1320 and consent of Graduate Advisor.

### **CSE5367 – PATTERN RECOGNITION**

**3** Lecture Hours · **0** Lab Hours

Principles and various approaches of pattern recognition processes, including Bayesian classification, parametric/non-parametric classifier design, feature extraction for signal representation, and techniques for classification and clustering. Current issues in pattern recognition research will also be examine. Prerequisite: CSE 2320 , MATH 3313.

### **CSE5368 – NEURAL NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Theoretical principles of neurocomputing. Learning algorithms, information capacity, and mapping properties of feedforward and recurrent networks. Different neural network models will be implemented and their practical applications discussed. Prerequisite: CSE 1320 and calculus II, or consent of instructor.

### **CSE5369 – SPECIAL TOPICS IN INTELLIGENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5370 – BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

Basic biology of genome and common laboratory techniques Overview of discrete probability theory, random variables and processes. Issues in genome mapping, sequencing and analysis: sequence alignments and alignment algorithms; genomic databases and information access; structure and features of DNA sequences. Techniques in contemporary biotechnology, including proteomics and gene expression analysis using microarray chips. Prerequisite: CSE 5311 or consent of instructor.

### **CSE5379 – SPECIAL TOPICS IN BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5380 – INFORMATION SECURITY 1**

**3** Lecture Hours · **1** Lab Hour

Hands-on introduction to the basics of security. Includes system security, buffer overflows, a high-level overview of cryptography, firewalls and IDS/IPS, malware, penetration testing, forensics, and system administration. Prerequisite: CSE 3320 or consent of instructor.

### **CSE5381 – INFORMATION SECURITY 2**

**3** Lecture Hours · **1** Lab Hour

Deeper study of the fundamentals of security, including symmetric key cryptography, public key cryptography, cryptographic protocols, malware design, network attacks and defenses, data security, privacy, and wireless security. Prerequisite: CSE 5380 and CSE 4344 or consent of instructor.

### **CSE5382 – SECURE PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours

This course is an introduction to methods of secure software design and development for upper-level undergraduate students and graduate students. Students will learn about the major security problems found in software today. Using this knowledge, they will work in teams to find these bugs in software, fix the bugs, and design software so that it has fewer security problems. Static analysis tools will be a core part of the class, but students will also be exposed to black box testing tools. Topics will include input validation, buffer overflow prevention, error handling, web application issues, and XML. Prerequisites: CSE 3310 and CSE 3320, or equivalent.

### **CSE5388 – SPECIAL TOPICS IN INFORMATION SECURITY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE5389 – SPECIAL TOPICS IN MULTIMEDIA, GRAPHICS, & IMAGE PROCESSING**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topics vary.

### **CSE5391 – INDIVIDUAL STUDY IN COMPUTER SCIENCE**

3 Lecture Hours · 0 Lab Hours

Topics dealing with special problems in Computer Science on an individual instruction basis. May be repeated for credit.

### **CSE5392 – TOPICS IN COMPUTER SCIENCE**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when the topics vary.

### **CSE5393 – DIRECTED STUDY IN COMPUTER SCIENCE**

3 Lecture Hours · 0 Lab Hours

### **CSE5394 – MASTER'S PROJECT I**

3 Lecture Hours · 0 Lab Hours

### **CSE5395 – MASTER'S PROJECT II**

3 Lecture Hours · 0 Lab Hours

### **CSE5398 – MASTER'S THESIS I**

3 Lecture Hours · 0 Lab Hours

Preliminary research effort for the master's thesis, including problem definition and literature search, along with identification of resources, milestones, examining committee members, and external publication venue. Graded F, R.

### **CSE5442 – EMBEDDED COMPUTER SYSTEMS**

3 Lecture Hours · 0 Lab Hours

Design of micro computer-based systems; microcomputer programming, component and system architectures, memory interfacing, parallel and serial I/O interfacing, A/D and D/A conversion, and typical applications. Prerequisite: CSE 3322 or consent of instructor.

### **CSE5698 – MASTER'S THESIS II**

6 Lecture Hours · 0 Lab Hours

Completion of tasks in support of the thesis defined in Master's Thesis I, including oral defense of the written documents. Prerequisite: CSE 5398. Graded F, R, P.

### **CSE6197 – RESEARCH IN COMPUTER SCIENCE**

1 Lecture Hour · 0 Lab Hours

Individually supervised research projects.

### **CSE6297 – RESEARCH IN COMPUTER SCIENCE**

2 Lecture Hours · 0 Lab Hours

Individually supervised research projects.

### **CSE6306 – ADVANCED TOPICS IN OPERATING SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5306 or consent of instructor.

### **CSE6311 – ADVANCED COMPUTATIONAL MODELS AND ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

This course aims at exploring advanced computation models, theory and advanced algorithm design and analysis techniques that have broad applicability in solving real-life problems in cross-disciplinary areas such as the Internet computing, Web search engines, data mining, bioinformatics, wireless mobile and sensor networks, dynamic resource management, distributed computing, and social networking. Topics include: Theory of NP-completeness; Equivalence of Machine Models; Lower Complexity Bounds; Randomized and Probabilistic Algorithms; Game-theoretic and Information-theoretic Models; Approximation and Optimization Techniques. Prerequisite: CSE 5311 or consent of instructor.

### **CSE6314 – ADVANCED TOPICS IN THEORETICAL COMPUTER SCIENCE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5314 or consent of instructor.

### **CSE6319 – SPECIAL TOPICS IN ADVANCED THEORY AND ALGORITHMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated when topics vary.

### **CSE6323 – AUTOMATED SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Study of foundations, techniques and tools for automating software processes and methodologies including analysis, design, implementation, testing, and maintenance of large software systems. Prerequisite: CSE 5324 or consent of instructor.

### **CSE6324 – ADVANCED TOPICS IN SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5324 or consent of instructor.

### **CSE6329 – SPECIAL TOPICS IN ADVANCED SOFTWARE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary. CSE 5324 or consent of instructor.

### **CSE6331 – ADVANCED TOPICS IN DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5332 and consent of instructor.

### **CSE6332 – TECHNIQUES FOR MULTIMEDIA DATABASES**

**3** Lecture Hours · **0** Lab Hours

Overview of data types, formats and compression techniques for audio, video and image data; operating systems techniques for multimedia; video delivery techniques; indexing and retrieval techniques; content-based video modeling; multimedia data on the Web. Prerequisite: CSE 5331 or consent of instructor.

### **CSE6339 – SPECIAL TOPICS IN ADVANCED DATABASE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6344 – ADVANCED TOPICS IN COMMUNICATION NETWORKS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5346 or consent of instructor.

### **CSE6345 – PERVASIVE COMPUTING & COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Issues and challenges in pervasive computing environments: interoperability and heterogeneity; location-awareness and mobility; transparency and proactivity; trust, authentication and security, information acquisition and dissemination in mobile and pervasive systems. Contest-aware computing. Ad-hoc, sensor and mobile P2P systems in pervasive computing. Case studies. Prerequisite: Introductory courses in Networks, Algorithms and Operating Systems: e.g., CSE 5344, CSE 5311, and CSE 5306, or consent of instructor.

### **CSE6347 – ADVANCED WIRELESS NETWORKS & MOBILE COMPUTING**

**3** Lecture Hours · **0** Lab Hours

Wireless architectures and protocols (e.g., GSM, CDMA); channel assignment and resource allocation; mobility and location management; mobile data management; wireless data networking and multimedia; call admission control and QoS provisioning; cross layer optimization, performance modeling. Prerequisite: CSE 5345 and CSE 5330.

### **CSE6348 – ADVANCES IN SENSOR NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Covers application and architecture of wireless sensor networks. Topics include platforms, routing, coverage, MAC, transport layer, data storage, query, and in-network processing. Prerequisite: CSE 5345 or equivalent course.

### **CSE6349 – SPECIAL TOPICS IN ADVANCED NETWORKING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6350 – ADVANCED TOPICS IN COMPUTER ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5350 and consent of instructor.

### **CSE6351 – TOPICS IN PARALLEL AND DISTRIBUTED COMPUTING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics change. Prerequisite: CSE 5350, 5351, or consent of instructor.

### **CSE6352 – FAULT-TOLERANT COMPUTING**

**3** Lecture Hours · **0** Lab Hours

Topics in reliable and fault-tolerant computing. May be repeated for credit when topics change. Prerequisite: CSE 5350 and consent of instructor.

### **CSE6359 – SPECIAL TOPICS IN ADVANCED SYSTEMS & ARCHITECTURE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6362 – ADVANCED TOPICS IN ARTIFICIAL INTELLIGENCE**



**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when the topic changes. Prerequisite: CSE 5361 and consent of instructor.

### **CSE6363 – MACHINE LEARNING**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of current machine learning methods, including statistical, connectionist, and symbolic learning. Presents theoretical results for comparing methods and determining what is learnable. Current issues in machine learning research will also be examined. Prerequisite: CSE 5361 and consent of instructor.

### **CSE6366 – DIGITAL IMAGE PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Digitization and coding of images, characterization and representation of digital images in spatial and frequency domains, picture restoration and enhancement, filtering of two-dimensional signals, image reconstruction. Prerequisite: CSE 5366 or consent of instructor.

### **CSE6367 – COMPUTER VISION**

**3** Lecture Hours · **0** Lab Hours

Advanced techniques for interpretation, analysis, and classification of digital images. Topics include methods for segmentation, feature extraction, recognition, stereo vision, 3-D modeling, and analysis of time-varying imagery. Also taught as EE 6358. Prerequisite: CSE 5301 or CSE 5360 or EE 5356 or EE 5357, and consent of instructor.

### **CSE6369 – SPECIAL TOPICS ADVANCED INTELLIGENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6379 – SPECIAL TOPICS IN ADVANCED BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6388 – SPECIAL TOPICS IN ADVANCED INFORMATION SECURITY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6389 – SPECIAL TOPICS IN ADVANCED MULTIMEDIA, GRAPHICS, & IMAGE PROCESSING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topics vary.

### **CSE6392 – SPECIAL TOPICS IN ADVANCED COMPUTER SCIENCE**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when the topics vary.

### **CSE6397 – RESEARCH IN COMPUTER SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Individually supervised research projects.

### **CSE6399 – DISSERTATION**



**3** Lecture Hours · **0** Lab Hours

Preparation of dissertation in computer science or computer science and engineering. Graded F, R.

### **CSE6697 – RESEARCH IN COMPUTER SCIENCE**

**6** Lecture Hours · **0** Lab Hours

Individually supervised research projects.

### **CSE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Preparation of dissertation in computer science or computer science and engineering. Graded F, R,P,W.

### **CSE6997 – RESEARCH IN COMPUTER SCIENCE**

**9** Lecture Hours · **0** Lab Hours

Individually supervised research projects.

### **CSE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Preparation of dissertation in computer science or computer science and engineering. Graded P, F, R.

### **CSE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Electrical Engineering

College of Engineering

### Chair Jonathan Bredow

Web [www.uta.edu/ee/](http://www.uta.edu/ee/)

Email [eedept@uta.edu](mailto:eedept@uta.edu)

Phone 817.272.2672

Fax 817.272.2253

517 Nedderman Hall

---

### Degrees / Certificates

#### Master's Degrees

Electrical Engineering, M.Engr. Non Thesis

Electrical Engineering, M.S.

Electrical Engineering, M.S. Fast Track

#### Doctoral Degrees

Electrical Engineering, B.S. to Ph.D.

Electrical Engineering, Ph.D.

#### Certificates

EE Unmanned Vehicle Systems Certificate

---

### Graduate Faculty

[R Stephen Gibbs](#)

[Henry Kearny](#)

[Ramtin Madani](#)

[Yuze Sun](#)

[Yan Wan](#)

#### Professor

[Kambiz Alavi](#)

[Jonathan Bredow](#)

[Donald Butler](#)

[Ronald Carter](#)

[Zeynep Celik-Butler](#)

[Jung-Chih Chiao](#)

[Venkat Devarajan](#)

[George V Kondraske](#)

[Wei-Jen Lee](#)

[Frank L Lewis](#)

[Qilian Liang](#)

[Robert Magnusson](#)

[Michael T Manry](#)

[Kamisetty R Rao](#)

[Harry Stephanou](#)

#### Associate Professor

W Alan Davis  
William E Dillon  
Sungyong Jung  
Soontorn Oraintara  
Dan Popa  
Saibun Tjuatja  
Michael Vasilyev  
Weidong Zhou

#### Assistant Professor

Ali Davoudi  
Samir Iqbal  
Ioannis Schizas  
David A Wetz

#### Senior Lecturer

Rasool Kenarangui  
Howard Russell

---

### Graduate Advisors

#### W Alan Davis

*Electrical Engineering, M.Engr. Non Thesis*  
*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

#### William E Dillon

*Electrical Engineering, M.S.*  
*Electrical Engineering, Ph.D.*

---

### Department Information

#### Courses

## Department Information

#### Objective

#### Admission Criteria

#### Degree Requirements

- Master's Degree
- Doctoral Degree

#### Continuation

#### Ph.D. Supervisory Committee

#### Technical Areas, Courses, and Technical Proficiency Courses

### Objective

The course offerings provide the student with an opportunity to broaden as well as to intensify his or her knowledge in a number of areas of electrical engineering. The student, with the aid of a faculty adviser, may plan a program in any one of a number of fields of specialization within electrical engineering or from the offerings of related departments in science and engineering.

Graduate study and research are offered in the areas of:

1. Digital and Microprocessor/Controller Systems: Digital Signal Processors, Embedded Microcontrollers, Microprocessors, Advanced Microprocessor Systems
2. Solid-State Devices, Circuits and Systems: Semiconductor Theory, Microwave Devices and Circuits, Analog Electronics.
3. Systems and Controls: Systems, Controls, Manufacturing, Discrete Event Control, Neural and Fuzzy Control, Nonlinear Modern Control, Biomedical Signal Processing and Instrumentation
4. Electromagnetic Fields and Applications: Remote Sensing, Electromagnetic Fields, Propagation, Scattering, Radiation, and Microwave Systems.
5. Digital Signal and Image Processing: Vision Systems, Neural Networks, Statistical Signal Processing, Nonlinear Image Processing, Virtual Prototyping, and Virtual Environments.
6. Telecommunications and Information Systems: Information Transmission and Communication Systems
7. Power Systems: Efficient Operation, Generation, Transmission, Distribution, Deregulation
8. Optical Devices and Systems: Optics, Electro-optics, Diffractive Optics, Nonlinear Optics, and Lasers
9. Nanotechnology and MEMS - Materials and Devices: Quantum Electronic Devices, Semiconductor Surfaces and Interfaces, Single Electron Devices, Sensors and Detectors, Carbon Nanotube Devices, Noise and Reliability in Nano-Electronic Devices, Microactuators, RF MEMS, Polymer Electronics, and Nanophotonics
10. Renewable Energy Systems and Vehicular Technology: Power Electronics Engineering, Motor Drives, Renewable Energy Systems, Grid-Integration, and Vehicular Power Structure

The program is designed to satisfy the needs of students pursuing master's and doctoral degrees and to provide for the student seeking to increase knowledge in areas of electrical engineering related to engineering practice. The courses offered will provide practicing engineers with advanced, up-to-date education in electrical engineering.

## Admission Criteria

The admission process considers all of the application material including official transcripts, GRE scores, letters of recommendation, and the statement of purpose. No single objective factor is used to finalize the decision for admission or to deny admission. It is expected that an applicant have background in such areas as linear systems, dc and ac electronics circuits, static and dynamic electromagnetic fields, microprocessors, among the courses completed in a typical electrical engineering curriculum. Students with a BS in other fields are encouraged to apply, but they may be required to remedy a lack of required EE courses by taking some undergraduate EE courses. An attempt will be made to match the technical aspirations of the potential graduate students with the departmental resources in order to provide a stimulating academic environment for the students and their graduate education.

Criteria concerning (1) unconditional admission, (2) provisional admission, (3) deferred admission, (4) denial of admission, and (5) fellowship, are given below.

1. Admission with Unconditional Status: A typical applicant who is "admitted" will have met the following admission requirements.
  - The minimum undergraduate GPA requirement
    - a. For MSEE admission 3.25 (on a 4.0 scale) based on upper division coursework (junior and senior level or equivalent)
    - b. For Ph.D. admission 3.5 based on MSEE or equivalent
  - Relevance of the student's undergraduate degree (background) to the EE curriculum.
  - Rigor of the student's Bachelor's degree.

Reputation of the University/College that the student received his/her previous degrees

- For Ph.D. applicants, the publications in scholarly conferences/journals are optional but will improve both a student's chances of securing admission and receiving financial support.
  - Three recommendation letters from individuals who can judge the probability of success of the student's graduate study.
  - GRE scores of at least the following:
    - Quantitative score  
= 720 (new scale: 156) for M.S.  
or  
= 750 (new scale: 159) for Ph.D.
    - Verbal score = 400 (new scale: 146)
    - Analytical Writing = 3 for M.S. or =3.5 for Ph.D
  - For an International student, an additional requirement beyond those stated above:  
TOEFL = 560 for the paper and pencil test, 220 for the computer-based test and 83 for the internet based test. A minimum of 19 in each of the four categories.
2. Admission with Provisional status: An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.
  3. Deferred status: A deferred decision may be granted when a file is incomplete.
  4. Denied Status: An applicant that does not meet categories 1, 2 or 3 above will be denied admission.
  5. Fellowships: Award of a fellowship will be based on the criteria required by the sponsor agency (including the graduate school) on a competitive basis.

## Degree Requirements

### Master's Degree

Master's degree requirements are described in the general catalog section titled Requirements for the Master's Degree/Degree Plans and Hours Required. The MSEE degree options available are thesis option, thesis substitute option and non-thesis option. The courses taken for all degrees must be distributed over three of the nine areas given in the Objective section. The MSEE program of work in electrical engineering may include up to nine graduate level semester hours of supporting courses outside the Electrical Engineering Department in math, science and engineering. The Graduate Advisor must approve supporting courses that are permitted on a degree plan. The courses approved outside electrical engineering may be used in lieu of one of the three distribution areas. The thesis option requires 24 semester hours plus six semester hours of thesis (EE 5698). The thesis substitute option requires 33 semester hours of which three semester hours must be in the thesis substitute project (EE 5392). The non-thesis option requires 36 semester hours. EE 5391 may not be used to satisfy course requirements in either the Thesis or Thesis-substitute degree plans. EE 5391 may be used one time as part of the non-Thesis degree plan. EE 5191 may not be used toward the MSEE or MENGGR degrees. The M.Engr. emphasizes design engineering and management. This program requires 36 semester hours distributed in the same manner as the MSEE program, except that up to 12 semester hours outside the department may be included.

### Doctoral Degree

The Ph.D. is a degree with emphasis on research. Requirements for the doctoral degree are described elsewhere in the general catalog section on Degree Offerings/Requirements. Permission to continue beyond the master's degree will be based on the grade point average and GRE scores as described above. Approval to continue in the doctoral program is given by

satisfactory completion of the following procedure:

1. Obtaining the approval of a dissertation adviser, and
2. Passing the Diagnostic Examination. This exam will be over the three Technical Proficiency areas selected by the student.

Review courses for the Diagnostic Examination should be completed during the M.S. degree or during the first 30 graduate hours required for entrance into the Ph.D. program.

This procedure must be completed within the year of coursework toward the Ph.D. A student not having attempted the Diagnostic Examination by this time will be allowed one more opportunity to take the examination during the next full semester.

The program of work is expected to include a minimum of 15 semester hours of advanced graduate level coursework beyond the master's degree and sufficient dissertation semester hours as required to complete the dissertation. All graduate level courses are counted in the 15 hour minimum. Among the 15 hour minimum, a minimum of 6 semester hours of advanced graduate level coursework is required. In addition, 2 semesters of 1 semester hour seminar course (EE5190) are required. The seminar course is not counted in the 15 hour minimum. The supervising professor may require additional coursework beyond the 15 hour minimum if deemed necessary to accomplish the research required for the dissertation. These courses may include graduate level mathematics, science, or engineering relevant to the student's dissertation program, but only with approval of the Graduate Advisor.

For the direct PhD program, the program of work is expected to include a minimum of 30 semester hours of graduate level coursework beyond the bachelor's degree and sufficient dissertation semester hours as required to complete the dissertation. Among the 30 hour minimum, a minimum of 6 semester hours of advanced graduate level coursework is required. In addition, 2 semesters of 1 semester hour seminar course (EE5190) are required. The seminar course is not counted in the 30 hour minimum.

The status of a doctoral candidate is approved for students who have passed an oral Comprehensive Examination (a comprehensive dissertation proposal) and submitted a Final Program of Work. The Comprehensive Examination will be required by the time the student has completed the required coursework. If the student fails the examination, he/she would be given one more chance to pass it no later than during the following semester. Upon completion of the Comprehensive Examination, the candidate should enroll in the dissertation course (EE 6399, EE 6699, or EE 6999) continuously until defense of the dissertation. The last semester the student must be enrolled in EE 6999. This ordinarily requires approximately 30 semester hours of dissertation credit.

## **Continuation**

The Electrical Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified engineers, has established certain policies and procedures. In addition to the requirements of the Graduate School listed elsewhere, to continue in the program each electrical engineering graduate student must maintain at least a B (3.0) GPA in all electrical engineering coursework and at least a B (3.0) GPA in all coursework for M.S. students. A student working toward a Ph.D. must maintain a 3.5 GPA in all electrical engineering coursework and at least a 3.5 GPA in all coursework.

## **Ph.D. Supervisory Committee**

A doctoral student's committee shall consist of at least five members of the Graduate Faculty, a majority of whom must be in Electrical Engineering.

## **Technical Areas, Courses, and Technical Proficiency Courses**

MSEE students must take courses from three Technical Areas. Non-thesis students must take one technical proficiency course from each of three areas, and earn at least a 3.3 GPA in those three courses.

Technical Area	Courses	Technical Proficiency Courses
1. Digital and Microprocessor/Controller Systems	EE 5313 EE 5314 EE 5315 EE 6313 EE 6314	EE 5313 - Microprocessor Systems Approved Substitution: EE
2. Solid State Devices, Circuits and Systems	EE 5305 EE 5310 EE 5311 EE 5312 EE 5316 EE 5317 EE 5318 EE 5340 EE 5341 EE 5342 EE 5346 EE 5347 EE 5348 EE 6318 EE 6341	EE 5305 - Advanced Electronics EE 5310 - Digital VLSI Design EE 5340 - Semiconductor Device Theory EE 5341 - Fundamentals for Semiconductor Devices Approved Substitution: EE
3. Systems and Controls	EE 5307 EE 5320 EE 5321 EE 5322 EE 5323 EE 5324 EE 5325 EE 5326 EE 5327 EE 5328 EE 5329	EE 5307 - Linear Control Systems Theory EE 5320 - Control System Design EE 5328 - Instrumentation and Measurement Approved Substitution: EE
4. Electromagnetic Fields and Applications	EE 5306 EE 5331 EE 5332 EE 5333 EE 5334 EE 5335 EE 5337 EE 5338	EE 5306 - Electromagnetic Theory EE 5331 - Microwave Systems Engineering Approved Substitution: EE
5. Digital Signal and Image Processing	EE 5302 EE 5350 EE 5351 EE 5352 EE 5353 EE 5354 EE 5355 EE 5356 EE 5357 EE 5358	EE 5302 - Random Signals and Noise EE 5350 - Digital Signal Processing EE 5356 - Digital Image Processing Approved Substitution: EE

	EE 6356	
6. Telecommunications and Information Systems	EE 5360 EE 5361 EE 5362 EE 5363 EE 5364 EE 5365 EE 5366 EE 5367 EE 5368 EE 6362 EE 6363 EE 6364 EE 6365 EE 6367 EE 6368	EE 5360 - Data Communication Engineering EE 5362 - Digital Communications Approved Substitution: EE
7. Power Systems	EE 5308 EE 5371 EE 5372 EE 5373 EE 5374 EE 5375 EE 5376 EE 5377 EE 5378 EE 6372	EE 5308 - Power System Modeling and Analysis EE 5371 - Power System Transmission I Approved Substitution: EE
8. Optical Devices and Systems	EE 5380 EE 5382 EE 5383 EE 5384 EE 5385 EE 5386 EE 5387 EE 5388	EE 5380 - Principals of Photonics and Optical Engineering Approved Substitution: EE
9. Nanotechnology and MEMS - Materials and Devices	EE 5343 EE 5344 EE 5345 EE 5381 EE 6342 EE 6343 EE 6344 EE 6345	EE 5343 - Silicon IC Fab Technology EE 5344 - Introduction to MEMS EE 5381 - Foundations in Semiconductors Approved Substitution: EE
10. Renewable Energy Systems and Vehicular Technology	EE 5309 (Grid-Integration of Renewable Energy Systems) EE 5309 (Renewable Energy Systems) EE 5309 (Electric Motor Drive) EE 5309 (Hybrid Electric Drive) EE 6375	EE 6375 - Power Electronics Engineering

## EE Courses

### EE5190 – ELECTRICAL ENGINEERING GRADUATE SEMINAR



**1 Lecture Hour · 0 Lab Hours**

Topics vary from semester to semester. May be repeated for credit. Graded F, P. Prerequisite: graduate standing or consent of the department.

### **EE5191 – ADVANCED STUDY IN ELECTRICAL ENGINEERING**

**1 Lecture Hour · 0 Lab Hours**

Individual research projects in electrical engineering. Prior approval of the EE Graduate Advisor is required for enrollment. A written report is required. Graded F, I, P.

### **EE5301 – ADVANCED ENGINEERING ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Analytical and numerical techniques for solving various types of engineering problems. Topics include matrix reduction by Gaussian elimination, similarity transformation, singular value decomposition, Jordan normal form, etc. Analysis techniques include Fourier series and transforms, fast Fourier transform, discrete convolution, complex analysis, least squares, and others.

### **EE5302 – RANDOM SIGNALS AND NOISE**

**3 Lecture Hours · 0 Lab Hours**

Probability, random variables, and stochastic processes in physical systems. Topics include probability space, discrete and continuous random variables, density and conditional density functions, functions of random variables, mean-square estimation, random signals, system response, optimum system design, and Markov processes.

### **EE5303 – ENGINEERING MANAGEMENT**

**3 Lecture Hours · 0 Lab Hours**

The management of the engineering function in high-technology industry with principal emphasis on the historical development of industrial management principles, decision-making, and planning.

### **EE5304 – NETWORK SYNTHESIS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to network synthesis of circuits using lumped, linear, passive, and operational amplifiers. Topics include realizability theory, synthesis of driving point impedances and two port circuits, passive and active filters, and Hilbert Transforms.

### **EE5305 – ADVANCED ELECTRONICS**

**3 Lecture Hours · 0 Lab Hours**

Advanced study of solid-state devices and integrated circuits. Analysis, design and simulation of analog integrated circuits including biasing, gain stages, active loads, power amplifiers, operational amplifiers and wideband amplifiers.

### **EE5306 – ELECTROMAGNETIC THEORY**

**3 Lecture Hours · 0 Lab Hours**

Advanced study of electromagnetic theory, its content, methods, and applications. Topics include theorems in electromagnetic theory, cylindrical and spherical wave functions, waveguides, integral equation methods, scattering and diffraction.

### **EE5307 – LINEAR SYSTEMS ENGINEERING**

**3 Lecture Hours · 0 Lab Hours**

Topics include state-space description of dynamic systems, analysis and design of linear systems, similarity transformation, state feedback, state observers, and matrix characterization of multivariable systems.

## **EE5308 – POWER SYSTEM MODELING AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Fundamental concepts for modeling transmission lines, distribution lines, power system generators, power transformers and power system load. The method of symmetrical components is discussed. Simulation of power systems during normal and abnormal conditions are presented. The philosophy of deregulation regarding separation of power systems into generation, transmission and distribution companies is introduced.

## **EE5309 – TOPICS IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Material may vary from semester to semester. Topics are selected from current areas of electrical engineering interest. May be repeated when topic changes.

## **EE5310 – DIGITAL VLSI DESIGN**

**3** Lecture Hours · **0** Lab Hours

Introduction of VLSI digital circuit design methodology and processing technology. Application of various design software packages for circuit analysis and layout. Design of basic CMOS digital logic circuits. Implementation of digital logic design at the transistor level.

## **EE5311 – VLSI SIGNAL PROCESSING ARCHITECTURES**

**3** Lecture Hours · **0** Lab Hours

Design and synthesis of DSP and telecommunication systems using integrated modeling, design, and verification tools. Exploration of high-level architectural transformations that can be used to design families of DSP architectures for a given signal processing algorithm. Prerequisite: EE 5350.

## **EE5312 – CMOS RFIC DESIGN**

**3** Lecture Hours · **0** Lab Hours

Transceiver design for wireless communications using advanced CMOS technology. Emphasis on full-custom chip design, RFIC design concepts. Transceiver architectures. Topics include low noise amplifier, mixer, oscillator, frequency synthesizer, and power amplifier. A project is required, including design, simulation and layout using an IC design tool. Prerequisite: EE 5305 or EE 5318.

## **EE5313 – MICROPROCESSOR SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Hardware/software development techniques for microprocessors and their programmable peripherals, with emphasis on multi-byte width memory design, throughput issues including DMA controller design, co-processor operation, interrupt-driven i/o, oscillators and timer peripherals, analog signal interfacing, and digital buses and interfaces. Topics include: code efficiency issues, hardware-software interactions, and design of memory systems, DMA controllers, and real-world interfacing.

## **EE5314 – EMBEDDED MICROCONTROLLER SYSTEMS**

**3** Lecture Hours · **2** Lab Hours

Hardware/software development techniques for microcontroller systems with emphasis on hardware-software interactions, programming internal peripherals, and real-time control and conditioning of external devices. Other topics include: code efficiency, pin reuse, interrupt-driven processing, USART operations, 12C and SPI bus peripherals, and use of internal peripherals.

## **EE5315 – DSP MICROPROCESSORS**

**3** Lecture Hours · **0** Lab Hours

Device architectures and various aspects of hardware/software design will be presented for dominant families of function-specific, application-specific and general-purpose digital signal processors (DSPs) from leading manufacturers. Special attention will be given to problems related to real-time acquisition and processing of analog data (audio, video, RF, etc.), including design principles for the state-of-the-art data conversion interfaces.

### **EE5316 – CMOS MIXED SIGNAL IC DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of CMOS mixed signal ICs with emphasis on full custom chip design. Comparators, switched-capacitor circuits, converter architectures, analog-to-digital converters, digital-to-analog converters, integrator-based filters. A project is required, including design, simulation and layout using an IC design tool. Prerequisite: EE 5305 or EE 5318.

### **EE5317 – ADVANCED DIGITAL VLSI DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of logical gates using CMOS technologies; static and dynamic circuit techniques; advanced techniques in logic circuits; general VLSI system components design; arithmetic circuits in VLSI; low power design; chip layout strategies. A design project using computer tools is required. Prerequisite: EE 5310.

### **EE5318 – ANALOG CMOS IC DESIGN**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of complementary metalAoxideAsemiconductor (CMOS) analog integrated circuits; metalAoxideAsemiconductor (MOS) device structure and models; single-state and differential amplifiers; current mirror and operational amplifier (opamp) design; noise analysis and feedback; comparators and voltage references.

### **EE5319 – TOPICS IN DIGITAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in digital systems and microcomputers. May be repeated when topic changes.

### **EE5320 – CONTROL SYSTEM DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design, analysis, and computer simulation of digital and continuous control systems. Controller design using classical techniques and modern state-variable techniques, including linear quadratic regulator, polynomial, and observer design. Discrete systems and Z-transform theory. Use of high-level computer programs in system analysis and design will be emphasized. A prior introductory systems course, such as EE 5307, is desirable.

### **EE5321 – OPTIMAL CONTROL**

**3** Lecture Hours · **0** Lab Hours

Design of optimal control systems. Topics include optimization under constraints, linear quadratic regulators, Ricatti's equation, suboptimal control, dynamic programming, calculus of variations, and Pontryagin's minimum principle. A prior introductory systems course, such as EE 5307, is desirable.

### **EE5322 – INTELLIGENT CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Principles of intelligent control including adaptive, learning, and self-organizing systems. Neural networks and fuzzy logic systems for feedback control. Mobile robots. Discrete event systems and decision-making supervisory control systems. Manufacturing work-cell control. Advanced sensor processing including Kalman filtering and sensor fusion. A prior introductory systems course, such as EE 5307, is desirable.

### **EE5323 – NONLINEAR SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Analysis and design of nonlinear systems. A general course in nonlinear systems with examples from multiple engineering and science disciplines. Topics include phase planes, Lyapunov's theory, describing functions, iterative maps, chaos and fractals, and nonlinear optimization methods.

## **EE5324 – DESIGN OF DIGITAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Sampling and data reconstruction. Z-transforms and state variable descriptions of discrete-time systems. Linear quadratic optimal control and state estimation. Quantization and other nonlinearities. Real-time control systems. Digital feedback control systems. Constructing discrete-time mathematical model system. Analysis of system behavior using discrete-time model and evaluation of the system performance. Discrete controller design techniques such as root locus, frequency response, and state space techniques. Evaluation and testing of system performance using digital simulations. (Also listed as AE 5380 and ME 5380).

## **EE5325 – ROBOTICS**

**3** Lecture Hours · **0** Lab Hours

Principles of kinematics, dynamics, and control of robot manipulators and mobile robots. Analysis of dynamical equations and design of robot control systems using modern nonlinear systems techniques. Computer simulation of robotic and mobile robot systems. Path planning, workcell coordination and control. Also listed as ME 5337.

## **EE5326 – FUZZY LOGIC**

**3** Lecture Hours · **0** Lab Hours

Introduction to FLS (fuzzy logic system) systems theory, design, and applications. Topics include fuzzy logic and crisp logic, fuzzy rules and interference, fuzzification, defuzzification, non-singleton FLS, type 1 and type 2 FLS, TSK (The Sleuth Kit) FLS, applications to signal processing, telecommunications, control, and decision making.

## **EE5327 – SYSTEM IDENTIFICATION AND ESTIMATION**

**3** Lecture Hours · **0** Lab Hours

Introduction to parametric and non-parametric modeling and identification and estimation methods for linear and nonlinear systems. Methods covered include linear and non-linear least squares, LTI (linear time-invariant) black-box models, empirical transfer function estimate, state-space and frequency domain model reduction methods, Kalman filtering and self-tuning adaptive control. Introductory systems and signals courses, such as EE 5302 and EE 5307, are desirable.

## **EE5328 – INSTRUMENTATION AND MEASUREMENT**

**3** Lecture Hours · **0** Lab Hours

Measurement principles and design of sensor and measurement systems. Topics include computer-based measurement systems, sensor design, signal conditioning, data acquisition, smart sensors, and mechatronics. Techniques for measuring quantities encountered in robotics and automation, manufacturing, biomedical, and other applications. A previous course in analog or digital electronics is desirable.

## **EE5329 – TOPICS IN SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in systems engineering, such as advanced controls, systems performance, manufacturing, graphics subsystems design, stochastic control, decision and information theory, hierarchical or distributed parameter control. May be repeated when topic changes.

## **EE5331 – MICROWAVE SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Topics include frequency planning, design and performance analysis of transmitter and receiver circuits for communications and radar. Emphasis is on design using commercially available mixers, amplifiers, oscillators, and modulation circuits. Analysis includes receiver noise figure, distortion and path loss effects.

## **EE5332 – ANTENNA SYSTEM ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Fundamental study of antennas and antenna design techniques. Topics include numerical analysis of wire antennas; aperture antennas; geometrical theory of diffraction; horns and reflector antennas; and antenna synthesis and measurements. Prerequisite: EE 5306.

### **EE5333 – WAVE PROPAGATION AND SCATTERING**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of VHF, UHF, and microwave propagation in radar and communications. Propagation over irregular terrain. Propagation in built-up areas. Propagation modeling and prediction tools. Multipath phenomena. Signal statistics. Prerequisites: EE 5302 and EE 5306.

### **EE5334 – FUNDAMENTALS OF RADAR REMOTE SENSING**

**3** Lecture Hours · **0** Lab Hours

Active and passive remote sensing systems, platforms for remote sensing, radar equation, interaction of electromagnetic wave with matter, radar cross section, scattering from area extensive targets, surface scattering, volume scattering, radiative transfer theory, radar data collection and analysis, retrieval of target parameters.

### **EE5335 – FUNDAMENTALS OF RADAR IMAGING**

**3** Lecture Hours · **0** Lab Hours

Radar system, antenna system, radar equation, electromagnetic waves scattering from targets, radar signal and noise, detection and extraction of signal from noise or clutter, range and Doppler profiles, radar image formation, real aperture radar imaging, SAR imaging, ISAR imaging, image distortion, superresolution radar imaging techniques.

### **EE5337 – THEORY AND LABS OF MICROWAVE MEASUREMENTS**

**2** Lecture Hours · **1** Lab Hour

Circuit parameters and measurement techniques at microwave frequencies. The labs include standing wave pattern measurement using slotted lines and automated measurements using vector network analyzers.

### **EE5338 – COMPUTATIONAL METHODS IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

A few mathematical and computational methods to analyze physical phenomena in electrical engineering, including Fourier transformation, finite difference method, finite element method, and integral equation method.

### **EE5339 – TOPICS IN ELECTROMAGNETICS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in electromagnetics. May be repeated when topic changes.

### **EE5340 – SEMICONDUCTOR DEVICE THEORY**

**3** Lecture Hours · **0** Lab Hours

Quantum mechanics applicable to semiconductor theory. Energy band theory, density of states and effective mass theory. Intrinsic and extrinsic semiconductors, equilibrium statistics for electrons and holes. Transport, generation and recombination of excess carriers. Device equations and physics. Theory and performance of p-n and Schottky diodes, bipolar and MOS transistors.

### **EE5341 – ELECTRONIC MATERIALS: FUNDAMENTALS AND APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

Fundamental theory required for the study of electronic materials: waves and particles, quantum mechanics, crystal structures, chemical bonds, and band theory. Materials and properties considered will be metals, semiconductors, and dielectrics including effective mass, doping, and carrier statistics, and electronic, dielectric, magnetic, and optical properties of materials as applied to integrated circuits, wireless

communication, optoelectronics, optical communication, and data storage.

### **EE5342 – SEMICONDUCTOR DEVICE MODELING AND CHARACTERIZATION**

**2** Lecture Hours · **3** Lab Hours

Device models and characterization procedures for the pn junction and Schottky diodes, the BJT, JFET, MOSFET, HBT, and optical sources and detectors. SPICE derived and higher level circuit simulator models will be presented. Prerequisite: EE 5340 or EE 5341.

### **EE5343 – SILICON INTEGRATED CIRCUIT FABRICATION TECHNOLOGY**

**2** Lecture Hours · **3** Lab Hours

Basic integrated circuit fabrication processes: crystal growth (thin film and bulk), thermal oxidation, dopant diffusion/implantation, thin film deposition/etching, and lithography. Introduction to process simulators, such as SUPREM. Fabrication and characterization of resistors, MOS capacitors, junction diodes and MOSFET devices. Prerequisite: Pass the NanoFAB Safety and Clean Room Protocol test.

### **EE5344 – INTRODUCTION TO MICROELECTROMECHANICAL SYSTEMS (MEMS) AND DEVICES**

**3** Lecture Hours · **0** Lab Hours

Develops the basics for microelectromechanical devices and systems including microsensors, and micromotors, principles of operation, different micromachining techniques, and thin-film technologies as they apply to MEMS.

### **EE5345 – INTRODUCTION TO BIO-NANOTECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Introduction to the area of bio-nanotechnology. Basics of nanotechnology as applicable to biological and biomedical sensing, therapy and diagnostics. Theory, fabrication, techniques and uses of nano-scale devices and objects in biomedical and biology.

### **EE5346 – MICROWAVE DEVICES**

**3** Lecture Hours · **0** Lab Hours

Device physics and applications of microwave semiconductor devices and vacuum tubes. Topics include operation, modeling and characterization of MESFETs and HEMTs, microwave diodes, and microwave vacuum tubes. Prerequisite: EE 5340 and EE 5341.

### **EE5347 – MICROWAVE CIRCUITS**

**3** Lecture Hours · **0** Lab Hours

Theory of microwave circuit design; techniques include use of Kuroda identities, Richard's transformation, and ABCD parameters; topics include design of couplers, impedance transformers, filters, and resonators incorporating coupled transmission lines. Design of coaxial lines, strip lines, and microstrip is addressed. Prerequisite: EE 5348.

### **EE5348 – RADIO-FREQUENCY CIRCUIT DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design of lumped- and distributed-element radio-frequency circuits operating at frequencies to 2 GHz, such as impedance-matching circuits, low noise and power amplifiers, and oscillators. S parameters will be used in determining gain, noise figure, and stability of an amplifier. Prerequisite: EE 5305.

### **EE5349 – TOPICS IN INTEGRATED CIRCUIT TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in integrated circuit technology. May be repeated when topic changes.

### **EE5350 – DIGITAL SIGNAL PROCESSING**

**3 Lecture Hours · 0 Lab Hours**

Time and frequency domain analyses of linear time invariant systems. Stability analyses of causal and non-causal systems using the Z-transform. FIR digital filter design. Design of frequency selective IIR digital filters using frequency transformations and the bilinear transform. Design of infinite and finite impulse response filters.

### **EE5351 – DIGITAL VIDEO CODING**

**3 Lecture Hours · 0 Lab Hours**

Fundamentals, principles, concepts and techniques of data compression such as Huffman, Lempel-Ziv, Arithmetic, Facsimile, Transform, DPCM, VQ, and Hybrid coding and applications in ITU, ISO, and IEC standards related to audio, video, and image compression.

### **EE5352 – STATISTICAL SIGNAL PROCESSING**

**3 Lecture Hours · 0 Lab Hours**

Estimation of autocorrelations, cross-correlations and power spectral densities. Least squares filter design via Toeplitz recursion and AR modeling. Adaptive noise cancellation. Algorithm development using maximum likelihood and minimum mean square error approaches. Lower bounds on estimation error variance. Prerequisites: EE 5350 and EE 5302 or consent of instructor.

### **EE5353 – NEURAL NETWORKS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to nonlinear networks for regression/approximation, classification, and clustering. Support vector machines. Training algorithms, methods for evaluating network performance. Applications in classification, estimation and forecasting. Prerequisite: EE 5350 or concurrent registration.

### **EE5354 – WAVELETS AND FILTER BANKS**

**3 Lecture Hours · 0 Lab Hours**

Fundamentals of signal decomposition, discrete multirate systems and polyphase structures. Time-frequency analysis and multiresolution signal representation. Two-channel filter banks, dyadic wavelets, and scaling and wavelet functions. M-channel filter banks and their lattice structures. Applications in signal de-noising, compression and communications. Prerequisite: EE 5350.

### **EE5355 – DISCRETE TRANSFORMS AND THEIR APPLICATIONS**

**3 Lecture Hours · 0 Lab Hours**

Principles and properties of discrete transforms such as discrete Fourier, discrete cosine, Walsh-Hadamard, slant, Haar, discrete sine, discrete Hartley, LOT and Wavelet transforms, and their applications in signal and image processing.

### **EE5356 – DIGITAL IMAGE PROCESSING**

**3 Lecture Hours · 0 Lab Hours**

Digital image processing as applied to image sampling and quantization, image perception, image enhancement, image restoration, image reconstruction from projections, and filtering and image coding. Prerequisite: EE 5350.

### **EE5357 – STATISTICAL PATTERN RECOGNITION**

**3 Lecture Hours · 0 Lab Hours**

Introduction to statistical pattern recognition. Deformation invariant and deformation variant feature extraction for class separability. Decision theory and statistical learning theory. Classifier design using Bayes, nearest neighbor, and regression-based approaches. Sensor fusion. Feature selection using transformation and subsetting. Prerequisites: EE 5350 and EE 5302 or consent of instructor.

### **EE5358 – COMPUTER VISION**

**3 Lecture Hours · 0 Lab Hours**



Techniques for the interpretation, analysis, and classification of digital images. Methods for segmentation, feature extraction, object recognition, stereo vision and 3-D modeling. A research project will be assigned.

### **EE5359 – TOPICS IN SIGNAL PROCESSING**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in signal processing. May be repeated when topic changes.

### **EE5360 – DATA COMMUNICATIONS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Principles underlying communication network design, including physical layer, MAC (media access control) layer modeling and engineering, and data link layer. Queuing theory. Internet structure, Internet protocol models and engineering. Physical layer description will include modulation, FEC (forward error correction), cyclic and Trellis coding. MAC layer modeling will include CSMA/CD (Carrier Sense Multiple Access / Collision Detection), ALOHAS, and other splitting algorithms.

### **EE5361 – FUNDAMENTALS OF TELECOMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Analysis of analog and digital communication techniques including amplitude modulation, frequency modulation, and pulse code modulation. Time-domain and frequency domain multiplexing. Analog and digital noise analysis, information theory, design of communication systems.

### **EE5362 – DIGITAL COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles underlying the transmission of digital data over noisy channels. Basics of source coding techniques including entropy coding, Lempel-Ziv. Channel capacity. Spectral analysis of digital modulation techniques. Optimum receiver design and error probability performance of commonly used modulation schemes. Applications to lightwave and wireless systems.

### **EE5363 – TELECOMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Basics of telecommunications and telephone networks. Switching and transmission systems. Circuit and packet switching. Call processing. Common channel signaling systems. Queuing theory and applications. OSI-layered (Open Systems Interconnection) reference architecture. ISDN (Integrated Services Digital Network).

### **EE5364 – INFORMATION THEORY AND CODING**

**3** Lecture Hours · **0** Lab Hours

Transmission of information over noisy channels, Shannon's coding theorems, techniques of coding and decoding for reliable transmission over noise channels, error-detecting, and error-correcting codes.

### **EE5365 – FIBER OPTIC TRANSMISSION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Propagation in optical fibers, characteristics and manufacture of fibers, semiconductor lightwave sources and detectors, optical transmitters and receivers, lightwave transmission systems for wide area and local area networks.

### **EE5366 – COMMUNICATION SATELLITE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Introduction of space communications, satellite orbits and their effect on communication system design. Atmospheric propagation effects. Communication link analysis, modulation, multiplexing, multiple access, encoding and forward error correction in satellite links. Design of communication satellites, earth station and their principal subsystems. Prerequisite: EE 5361.



### **EE5367 – WIRELESS SYSTEMS AND PROPAGATION MODELING**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles and techniques of electromagnetic wave propagation as it applies to current wireless and cellular systems, development of models of propagation and their application in wireless system design, characteristics of microwave devices used in wireless systems, system and traffic design techniques used in wireless systems.

### **EE5368 – WIRELESS COMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of radio system design and propagation. Basics of cellular systems, environment, propagation models, traffic models and spectral capacity. Multiple-access techniques including FDMA (frequency division multiple access), TDMA (time division multiple access), CDMA (code division multiple access). Analog and digital modulation techniques used in wireless communication and problems with RF (radio frequency) interference.

### **EE5369 – TOPICS IN COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in communications. May be repeated when topic changes.

### **EE5371 – POWER SYSTEM PLANNING, OPERATION, AND CONTROL IN A DEREGULATED ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Current market structure and practices are discussed. The issues of system planning, operation, and control in a deregulated environment are addressed. Prerequisite: EE 5308.

### **EE5372 – CONGESTION MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Phenomena of congestion and transmission pricing are presented. Thermal related congestion, such as power flow, and stability related congestion, such as voltage stability, transient stability, and dynamic stability, are covered. The effects of reactive power are discussed. Reliability and security issues of power transmission systems are presented. Congestion management and congestion relief measures are discussed. Prerequisite: EE 5308.

### **EE5373 – UNBUNDLING SERVICES OF A DEREGULATED POWER SYSTEM**

**3** Lecture Hours · **0** Lab Hours

The fundamental operating functions of a deregulated power system are presented. Unbundling of these functions and cost allocations are discussed. Topics of ancillary services, power marketing, price forecasting, and load forecasting are covered. Prerequisite: EE 5308.

### **EE5374 – POWER SYSTEM PROTECTIVE RELAYING**

**2** Lecture Hours · **3** Lab Hours

Fundamental understanding of symmetrical components, applications of symmetrical components in system protection, philosophy of power system protection, various protective relay systems, and the special considerations in applying the microprocessor based relays are covered. Experiments utilizing the Power System Simulation Laboratory are required.

### **EE5375 – POWER SYSTEM DISTRIBUTION**

**3** Lecture Hours · **0** Lab Hours

The basic functions of a Distribution Company are presented. Load representation, distribution load flow and the philosophy of simulation for a distribution system are discussed in detail.

### **EE5376 – POWER SYSTEM RELIABILITY IN PLANNING AND OPERATION**

**3** Lecture Hours · **0** Lab Hours

Loss of Load indices, Loss of Energy indices, Frequency and Duration methods, Interconnected Reliability methods, and Composite Generation and Transmission Reliability methods will be covered.

### **EE5377 – PROGRAMMABLE LOGIC CONTROLLERS IN INDUSTRIAL AUTOMATION**

**2** Lecture Hours · **3** Lab Hours

The application of Programmable Logic Controllers (PLC) in industrial automation and energy systems monitoring will be covered. Transducers, Supervisory Control and Data Acquisition (SCADA) systems, and Distributed Control Systems (DCS) will be discussed. Material covered is also applicable to various mechanical and civil engineering fields, thus enrollment of graduate engineering students from other disciplines is welcome. Experiments utilizing the Power System Simulation Laboratory are required.

### **EE5378 – POWER QUALITY**

**2** Lecture Hours · **3** Lab Hours

Principles of harmonics and filtering, source of voltage surges and surge protection, causes of voltage sags, flickers, and interruptions, and voltage supporting devices, and utility and end-user strategies for improving power quality are covered.

### **EE5379 – TOPICS IN POWER SYSTEM ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in power system engineering. May be repeated when topic changes.

### **EE5380 – PRINCIPLES OF PHOTONICS AND OPTICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Optical fields with applications to laser, optical fibers, and photonic signal processing. Encoding, manipulating, transmitting, storing, and retrieving information using light. Light propagation including isotropic and birefringent optical media, dielectric interfaces, interference and diffraction, Gaussian beams, optical cavities and principles of laser action, optical waveguides and fibers, electro- and acousto- optic modulation, and holography. Design, analysis and application of optical devices in communications and signal processing.

### **EE5381 – FOUNDATIONS IN SEMICONDUCTORS**

**3** Lecture Hours · **0** Lab Hours

Electronic properties of semiconductors affecting semiconductor devices: quantum behavior; Kronig-Penny model; energy bands; carrier statistics; density of states; one, two, and three dimensional systems; carrier transport; thermoelectric effects; surface and bulk generation-recombination statistics; continuity equations and their solutions; optical properties; semiconductor characterization techniques.

### **EE5382 – OPTICAL DETECTORS AND RADIATION**

**3** Lecture Hours · **0** Lab Hours

Basic principles of optical detectors used in imaging and communications. The course focuses on infrared detectors. Geometric optics, blackbody radiation, radiometry, photon detection mechanisms, thermal detection mechanisms, noise in optical detectors, figures of merit for detectors, photovoltaic detectors, photoconductive detectors, bolometers, pyroelectric detectors, and quantum well detectors.

### **EE5383 – SOLAR ELECTRICITY & PHOTOVOLTAICS**

**3** Lecture Hours · **0** Lab Hours

Solar radiation and other forms of renewable energy: wind, tide, biomass and hydropower. Fundamental theory of photovoltaics: crystal structures, band theory, semiconductors, doping, carrier statistics, optical absorption, and p-n junctions. Status of solar cell, including cost, optical design, system engineering, silicon solar cells and thin film solar cells. Prospects of solar cells, regarding low-cost and high-efficiency solar cells. Prerequisite: EE 5340 or EE 5341.

### **EE5384 – OPTOELECTRONIC DEVICES FOR COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Electronic and optical processes in semiconductors. Light emitting diodes. Laser diodes: structures, properties and operating principles. Photodetectors and solar cells. Noise and the photoreceiver. Optoelectronic modulators and switching devices. Systems needs and new device challenges.

### **EE5385 – NONLINEAR OPTICS**

**3** Lecture Hours · **0** Lab Hours

Nonlinear optical processes and applications in crystals, optical fibers and waveguides. Second- and third-order nonlinear susceptibility, symmetry properties, coupled-wave propagation, phase-matching techniques, sum- and difference-frequency generation, parametric amplification, four-wave mixing, self- and cross-phase modulation, soliton propagation, and Raman scattering.

### **EE5386 – INTEGRATED OPTICS**

**3** Lecture Hours · **0** Lab Hours

Theory and techniques of integrated optics including optical waveguiding, coupling, modulation, grating diffraction, detection and integrated systems.

### **EE5387 – FOURIER OPTICS AND HOLOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

Theory of Fourier optics and holography including scalar diffraction theory, Fresnel and Fraunhofer diffraction, Fourier transforming properties of lenses, optical imaging systems, spatial filtering, and the theory and applications of holography. Prerequisite: EE 5306.

### **EE5388 – LASERS**

**3** Lecture Hours · **0** Lab Hours

Propagation of optical rays and waves, Gaussian laser beams, laser resonators, atomic systems, lasing and population inversion, laser amplifiers, practical gas and solid-state lasers including continuous-wave and pulsed lasers, mode locking, Q-switching, frequency doubling, tunable lasers, semiconductor lasers, vertical-cavity lasers and applications of lasers.

### **EE5389 – TOPICS IN OPTICS**

**3** Lecture Hours · **0** Lab Hours

Formal instruction in selected topics in optics. May be repeated when topic changes.

### **EE5391 – ADVANCED STUDY IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual research projects in electrical engineering. Prior approval of the EE Graduate Advisor is required for enrollment. A written report is required. Graded F,P,R.

### **EE5392 – PROJECT IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual research projects performed for fulfilling the requirements of the thesis substitute option. Prior approval of the EE graduate advisor is required for enrollment. A written and oral report is required. Graded F, P, R.

### **EE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: Graduate standing in electrical engineering.

### **EE5698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

Graded F, P, R. Prerequisite: Graduate standing in electrical engineering.

### **EE6313 – ADVANCED MICROPROCESSOR SYSTEMS**

**3 Lecture Hours · 0 Lab Hours**

Study of the advanced microprocessor architectures including 32/64-bit RISC and CISC families of microprocessors will be compared based on detailed architectural analysis of the selected devices. Topics include: address/instruction pipelines, burst cycles, memory caching and cache coherency issues, register renaming, speculative instruction execution and other performance-oriented techniques. Prerequisite: EE 5313.

### **EE6314 – ADVANCED EMBEDDED MICROCONTROLLER SYSTEMS**

**3 Lecture Hours · 2 Lab Hours**

Study of advanced microcontroller system designs with an emphasis on multi-tasking, real-time control of devices. Topics include: design of real-time control systems, programmable logic controller (PLC) hardware, USB peripherals and network appliances. Prerequisite: EE 5314.

### **EE6318 – ADVANCED ANALOG VLSI SYSTEMS**

**3 Lecture Hours · 0 Lab Hours**

Data converter design: Nyquist rate D/A and A/D converters and oversampling converters; continuous time filters; phase lock loops; low power analog circuit design techniques.

### **EE6323 – NONLINEAR AND ADAPTIVE CONTROL**

**3 Lecture Hours · 0 Lab Hours**

Advanced design of nonlinear and adaptive systems. Topics include phase planes, Lyapunov's theory, describing function, feedback linearization, parameter estimation, self-tuning, and model reference adaptive systems. Also offered as AE 5337, ME 5374. Credit will be granted only once. Prerequisite: EE 5323.

### **EE6327 – KALMAN FILTERING**

**3 Lecture Hours · 0 Lab Hours**

Kalman filter design and implementation. Optimal filtering for discrete-time and continuous-time dynamical systems with noise. Wiener filtering. State-space determination. Also offered as AE/ME 5336. Credit will be granted only once. Prior introductory systems or identification course, such as EE 5307 or EE 5327, is desirable. Credit will be granted only once.

### **EE6340 – INTRO TELE NETW**

**3 Lecture Hours · 0 Lab Hours**

### **EE6341 – FEEDBACK AMPL**

**3 Lecture Hours · 0 Lab Hours**

### **EE6342 – ADVANCED QUANTUM DEVICES**

**3 Lecture Hours · 0 Lab Hours**

Advanced concepts in quantum theory of semiconductors. Epitaxial growth and characterization of heterostructures, quantum wells, and superlattices including strained layers; electronic and optical properties of these structures; electronic and optoelectronic devices based on quantum wells and superlattices. Prerequisite: Graduate standing.

### **EE6343 – QUANTUM WELL LASERS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to semiconductor heterostructures and quantum wells. Quantum theory of optical processes and laser operation. Threshold, spectral, and dynamical behavior. Modern laser structures and technologies, including strained-layer and surface emitting lasers. Prerequisite: EE 5340 and EE 5341.

### **EE6344 – NANOSYSTEMS AND QUANTUM ELECTRONIC DEVICES**

**3** Lecture Hours · **0** Lab Hours

Design, analysis, and techniques for conceptualizing and fabricating nanoscale systems. Role of quantum confinement and mesoscopic behavior, phase coherence, quantum transport, single electron devices, semiconductor heterostructures, self-assembly and molecular electronic schemes, lithographic methods, atomic epitaxy, and surface analysis techniques. Prerequisite: EE 5340 and EE 5341.

### **EE6345 – ADVANCED MEMS -- MICROELECTROMECHANICAL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Microelectromechanical systems (MEMS) and devices including micro-actuators and optical MEMS. Application strategy of MEMS; fabrication and design; actuation mechanism and architectures; optical sensor and communication applications. Mask layout and hands-on design, fabrication procedures, design rules, demonstrated examples, and integration architectures. Prerequisite: EE 5344.

### **EE6352 – DIGITAL COM SYS**

**3** Lecture Hours · **0** Lab Hours

### **EE6356 – IMAGE AND VIDEO CODING**

**3** Lecture Hours · **0** Lab Hours

Fundamentals, principles, concepts, and techniques of data (image/video/audio) compression such as Huffman coding, arithmetic coding, Lempel-Ziv coding, facsimile coding, scalar and vector quantization, DPCM, PCM, sub-band coding, transform coding, hybrid coding and their applications. Prerequisite: EE 5350.

### **EE6360 – DIGI SIGNAL PRO**

**3** Lecture Hours · **0** Lab Hours

### **EE6362 – ADVANCED DIGITAL COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Digital communication systems design with intersymbol interference. Partial response signaling. Adaptive equalization. Viterbi decoding. Digital signaling on fading multi-path channels and wireless channels. Applications of error detecting and correction coding. Spread spectrum systems. Prerequisite: EE 5362.

### **EE6363 – SPREAD SPECTRUM COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Direct-sequence spread spectrum systems utilizing pseudonoise (PN) generators. PN sequences and their properties. Maximal length codes, Gold codes. Code acquisition techniques. Phase-locked loops and their applications in carrier tracking and code tracking. Performance of spread spectrum systems in jamming environments. Prerequisite: EE 5362.

### **EE6364 – ADVANCED DATA NETWORKS**

**3** Lecture Hours · **0** Lab Hours

Network performance analysis, link and upper layer. Internet and ATM protocols, Internet routing and traffic management, ATM switch design and ATM traffic management. Prerequisite: EE 5360.

### **EE6365 – ADVANCED FIBER OPTICS SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Course reviews the modern WDM systems and methods of their design. Topics include architecture of state-of-the-art WDM systems; design of optical amplifiers; signal-to-noise-ratio budget; estimation of various system impairments; popular modulation formats; transmitter and receiver design issues; balancing optical nonlinearity and dispersion; optical networking; and characterization of WDM system's performance. Familiarity with fiber optics and telecommunications is desirable.

### **EE6367 – ADVANCED WIRELESS COMMUNICATIONS**

**3** Lecture Hours · **0** Lab Hours

Performance analysis of cellular systems with multipath propagation, diversity, equalization, smart antennas. Interference compensation and signal separation in multiuser systems. Micro- and pico-cell design. Allocation of channels, hard and soft handoffs. Data transmission on mobile networks. Review of selected current and proposed systems. Prerequisite: EE 5368.

### **EE6368 – SIMULATION OF COMMUNICATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Simulation methods of analysis of communications systems using C programming language and other languages. Analysis involving atmospheric point-to-point radio and cellular channels and fiber optic systems and their elements. Prerequisite: EE 5362, EE 5368, EE 5365, C, and UNIX. Prerequisite: EE 5362, EE 5368, EE 5365, C, and UNIX.

### **EE6371 – ELECTRIC AND HYBRID ELECTRIC VEHICLES**

**3** Lecture Hours · **0** Lab Hours

Dynamic modeling of vehicles, internal combustion engines, transmission, brake, electric motor drives, battery management and energy storage, vehicle to power grid interface, fuel economy, intelligent energy management system, fuel cell cars, vehicular communication.

### **EE6372 – HIGH VOLTAGE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Introduction to design, measurement and testing methods for high voltage systems. A study of electrical insulation materials and their properties, partial discharges and voltage breakdowns, electric field plotting methods, generation of high voltage test pulses, and high voltage measurement techniques.

### **EE6373 – RENEWABLE ENERGY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Wind energy harvest, solar energy sources and harvesting, hydropower resources, geothermal, fuel cell and hydrogen economy, power grid interface and distributed generation, microscopic energy harvest from vibration and thermal, role of power electronics in integration of renewable energy systems. Familiarity with the principles of power electronics and electric power recommended.

### **EE6374 – ADVANCED ELECTRIC MOTOR DRIVES**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of electromechanical energy converters, dc-brushed and permanent magnet dc motor drives, two axis theory of ac-electric machines, field oriented control of induction motor/generator drives, field oriented control of the brushless dc machines, switched reluctance motor drives, vector space pulse width modulated (PWM) power converters, electromagnetic interference / electromagnetic compatibility (EMI/EMC) issues and solutions in adjustable speed motor drives. Familiarity with the principles of power electronics and electric power recommended.

### **EE6375 – POWER ELECTRONICS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Switched mode DC-DC converters, controlled rectifiers, commutated and resonant inverters. Also, performance evaluation of specific applications by means of state space analysis will be discussed. Prerequisite: Must have consent of instructor.

### **EE6376 – SUSTAINABLE ENERGY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Laws of thermodynamic, electromechanical energy conversion, economic sustainability, environmental sustainability, Kyoto protocol, fossil fuels, renewable energy sources, nuclear energy.

### **EE6381 – NANOPHOTONICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to nanophotonic materials, devices, systems integration, and applications. Principles of nanoscale structures, quantum dots, photonic crystals, near field optics, plasmonics and metamaterials. Design, modeling, synthesis and fabrication of nano-structures and devices. Scaling of photonic components and optoelectronic integration.

### **EE6397 – RESEARCH IN ELECTRICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of electrical engineering. Graded F, P, R.

### **EE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

### **EE6697 – RESEARCH IN ELECTRICAL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of electrical engineering. Graded F, P, R.

### **EE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P, W.

### **EE6997 – RESEARCH IN ELECTRICAL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects leading to a doctoral dissertation in the area of electrical engineering. Graded F, P, R.

### **EE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded F, P, R.

### **EE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not

complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
    - Bioengineering
    - Civil Engineering
    - Computer Science and Engineering
    - Electrical Engineering
    - Industrial and Manufacturing Systems Engineering
    - Materials Science and Engineering
    - Mechanical & Aerospace Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Industrial and Manufacturing Systems Engineering

College of Engineering

**Chair Victoria Chen**

**Chair Paul Componation**

Web [www.uta.edu/ie/](http://www.uta.edu/ie/)  
Phone 817.272.3092

**420 Woolf Hall**

---

### Degrees / Certificates

#### Master's Degrees

Engineering Management, M.S.  
Industrial Engineering, M.Engr.  
Industrial Engineering, M.S.  
Logistics, M.S.  
Systems Engineering, M.S.

#### Doctoral Degrees

Industrial Engineering, B.S. to Ph.D.  
Industrial Engineering, Ph.D.

#### Certificates

IE Unmanned Vehicle Systems Certificate

---

### Graduate Faculty

**Paul Componation**  
**Shouyi Wang**

#### Professor

**Victoria Chen**  
**Herbert Corley**  
**Donald Liles**  
**John Priest**

#### Associate Professor

**Brian Huff**  
**Sheik Imrhan**  
**Erick Jones**  
**Jamie Rogers**  
**Jay Rosenberger**

#### Assistant Professor

**Susan Ferreira**  
**Li Zeng**

**Senior Lecturer**  
**Bonnie Boardman**

---

## Graduate Advisors

**Sheik Imrhan**  
*Industrial Engineering, M.Engr.*  
*Industrial Engineering, M.S.*  
*Industrial Engineering, Ph.D.*

**Erick Jones**  
*Logistics, M.S.*

**Donald Liles**  
*Engineering Management, M.S.*  
*Systems Engineering, M.S.*

---

## Department Information

### Courses

# Department Information

## Programs in Industrial Engineering

### Admission Criteria

- **Unconditional Admission Criteria**
- **Probationary Admission Criteria**
- **Provisional Admission**
- **Deferral**
- **Denial**
- **Continuation**

### Degree Requirements

- **Master of Science**
- **Master of Engineering**

## Fast Track Program for a Master's Degree in Industrial Engineering

### BS to PhD Program

### Doctor of Philosophy

## Program in Systems Engineering

### Admission Criteria

- **Unconditional Admission**
- **Probationary Admission Criteria**
- **Provisional Admission**
- **Deferral**
- **Denial**

### Degree Requirements

## Program in Engineering Management

- **Admission**
- **Degree Requirements**

## Program in Logistics

- **Admission**

- **Degree Requirements**

## **Programs in Industrial Engineering**

The graduate program in industrial engineering is designed to provide the student with fundamental knowledge in the various areas of industrial engineering and with the opportunity to emphasize in a particular area. A student pursuing a master's or doctoral degree may specialize in any area of industrial engineering such as General Industrial Engineering, Operations Research and Applied Statistics, Manufacturing Systems, Logistics, Enterprise Systems, Enterprise Management, and Ergonomics.

The Department also participates in a college-wide Manufacturing Certificate program. In addition, the Master of Science in Logistics Program and the Master of Science in Engineering Management Program are offered in partnership with the College of Business Administration. The Logistics and Engineering Management programs are discussed elsewhere in this catalog.

The Master of Science in Systems Engineering Program is discussed later in this section.

### **Admission Criteria**

Applicants for the master's degree who hold a baccalaureate degree in engineering must meet the general requirements described below. Applicants not meeting all criteria may be admitted on a probationary basis.

For applicants with no prior training in engineering, the same minimum criteria will apply. In addition, their records will be reviewed in relation to the intended program of study, and specific remedial work may be required.

The acceptance of applicants who have already received a master's degree in engineering will be based on the above-mentioned minimum criteria and results of graduate work.

Performance on the GRE will not be the sole criterion for admitting applicants or the primary criterion to deny admission to either the master's or Ph.D. program. In cases where GRE performance is relatively poor all other qualifications presented by the applicant will be carefully evaluated for evidence of potential for success.

### **Unconditional Admission Criteria**

Unconditional Admission into the M.S. and Ph.D. programs in Industrial Engineering is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework.
- A GPA of at least 3.0 in all prior graduate work for Masters students or a GPA of at least 3.3 in all prior graduate work for Ph.D. students.
- A minimum score of 600 for Masters students or 700 for PhD students on the GRE Quantitative section and a minimum score of 400 for Masters students or 450 for Ph.D. students on the GRE Verbal section.
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language.
- Adequate preparation in mathematics, science, and industrial engineering

### **Probationary Admission Criteria**

Prospective students not meeting the conditions for unconditional admission may be granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must achieve a GPA of at least 3.0 for the first 9 hours completed at UTA. Unconditional admission may then be granted. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.

## Provisional Admission

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

## Deferral

The admission decision is deferred if sufficient information is not available.

## Denial

Prospective masters students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program. Prospective PhD students who are not unconditionally or provisionally admitted will be denied at the discretion of the graduate advisor.

## Continuation

The Industrial Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified professional engineers, has established certain policies and procedures. In addition to requirements of the Graduate School listed elsewhere, to continue in the program each industrial engineering graduate student must:

1. Maintain at least a B (3.0) overall GPA in all coursework taken as a graduate student and in all IE courses taken , and
2. Demonstrate suitability for professional engineering practice.

At such time as questions are raised by industrial engineering graduate faculty regarding either of the above, the student will be notified and will be provided the opportunity to respond to the Committee on Graduate Studies in Industrial Engineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "**Grievances Other than Grades.**"

## Degree Requirements

Students with degrees in other engineering disciplines may qualify for graduate study in industrial engineering after the completion of prescribed deficiency courses. Entering graduate students who are not proficient in engineering economy, probability and statistics, operations research, or industrial engineering design and analysis may be required to take deficiency courses to provide an appropriate background for graduate study in industrial engineering. For applicants with no prior education in engineering, the same deficiency courses will apply. In addition, courses in mathematics, physics, computer science, and basic engineering may be required.

Each IE graduate student will be required to take six courses as part of an industrial engineering core curriculum. The rest of the student's program will be elective, subject to the approval of the student's supervisory committee. The core curriculum is as follows:

1. Three hours of coursework in engineering statistics approved by the graduate advisor.
2. Three hours of coursework in operations research approved by the graduate advisor.
3. Three hours of coursework in engineering economy approved by the graduate advisor.
4. Nine hours of industrial engineering design approved by the Graduate Advisor.

A final examination is required for each master's candidate. In the option involving a thesis, this final examination will be oral and will cover the thesis. The non-thesis final examination will be written.

## Master of Science

The Master of Science Degree is a research-oriented program which consists of a thesis option, thesis-substitute option, and a non-thesis option. M.S. degree requirements are given under the catalog section entitled "Advanced Degrees and Requirements."

### **Master of Engineering**

The Master of Engineering Degree is an engineering practice-oriented program. The degree is a 36 credit-hour program in which a maximum of six credit hours may be earned by an acceptable design project report, internship, or additional coursework. Applicants for this degree must have a baccalaureate degree in an engineering discipline. M.E. degree requirements are given under the catalog section entitled "Advanced Degrees and Requirements."

### **Fast Track Program for a Master's Degree in Industrial Engineering**

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in Industrial Engineering to satisfy degree requirements leading to a master's degree in Industrial Engineering while completing their undergraduate studies. When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to 9 hours of coursework designated by the Industrial Engineering Program to satisfy both undergraduate and graduate degree requirements. In the limiting case, a student completing the maximum allowable hours (9) while in undergraduate status would have to take only 27 additional hours to meet minimum requirements for graduation.

Interested UT Arlington undergraduate Industrial Engineering students should apply to the Industrial Engineering Program when they are within 30 hours of completing their bachelor's degrees. They must have completed at least 30 hours at UTA, achieving an overall GPA of 3.0 or better in all work done at UTA and in the last 30 hours. Additionally, they must have completed 9 hours of specified foundation courses with a minimum GPA of 3.3 in those courses. Contact the Undergraduate Advisor or Graduate Advisor in Industrial Engineering for more information about the program.

### **BS to PhD Program**

The BS to PhD track in Industrial Engineering requires 30 credit hours including 18 hours of diagnostic coursework, a three credit hour elective and 9 credit hours of research coursework. This is in addition to the PhD requirements.

### **Doctor of Philosophy**

The Ph.D. degree should normally require approximately four years or less of full-time study after completion of the BS degree. A student's program will consist coursework, independent study, and a dissertation in fields pertinent to the student's areas of interest. The program for each student will be planned by the student and a committee of faculty members. There is no foreign language requirement for the Ph.D. degree.

Students with undergraduate degrees in fields other than engineering will be required to take the necessary courses to establish a background in science, mathematics, and engineering. Ph.D. requirements are listed in the catalog section entitled "Advanced Degrees and Requirements."

### **Program in Systems Engineering**

The Systems Engineering program is designed to provide students with both the fundamental and applied management and technical knowledge to support the development of complex systems. Systems Engineering is that branch of engineering that develops systems, where a system is a collection of elements that work together as a unit.

Systems Engineering considers the total systems life-cycle from customer requirements and concept through design and development, system use, system maintenance, and system disposal. A Systems Engineering curriculum must encourage a broad view rather than a focus on individual

system elements or phases of development. This broad view, a systems view, enables better system performance and reduces the likelihood of unintended consequences.

Students may obtain a Master of Science in Systems Engineering and then pursue a PhD in Industrial Engineering with a focus on Systems Engineering.

## Admission Criteria

### Unconditional Admission

Unconditional admission into the M.S. Systems Engineering program is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework or prior graduate work
- A minimum score of 600 on the GRE Quantitative section and 400 on the GRE Verbal section
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language.
- Adequate preparation in mathematics, science, and engineering, or other appropriate field.
- A minimum of two years of industry experience

### Probationary Admission Criteria

Prospective students who do not meet the conditions for unconditional admission are granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must achieve a GPA of at least 3.0 for the first 9 hours completed at UTA. Unconditional admission may then be granted. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.

### Provisional Admission

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

### Deferral

The admission decision is deferred if sufficient information is not available.

### Denial

Prospective students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program. Denial will not be based solely or primarily on GRE performance. In cases where test performance is relatively poor, all other qualifications presented by the applicant will be carefully evaluated for evidence of potential for success in the program.

## Degree Requirements

The M.S. degree in Systems Engineering requires 36 hours of coursework. The coursework is in the Department of Industrial and Manufacturing Systems Engineering. The program includes such courses as:

Introduction to Systems Engineering  
Systems Engineering I  
Systems Engineering II  
Systems Engineering III  
Advanced Operations Research

Advanced Engineering Statistics  
Simulation and Optimization  
Enterprise Engineering Methods  
Enterprise Architectures and Frameworks  
Engineering Management I  
Engineering Management II  
Project Management  
Advanced Engineering Economy  
Management of Knowledge and Technology

## **Program in Engineering Management**

The Engineering Management Program is offered as an interdisciplinary program that integrates engineering and business concepts. The curriculum prepares an experienced professional engineer or scientist for a leadership role in planning, developing and managing firm's technological resources including people, technology and processes. Graduates acquire an understanding how to use the technical base to accomplish the organization's operational, strategic and competitive objectives.

### **Admission**

Applicants must hold a baccalaureate degree in science, mathematics, engineering or other appropriate field.

### **Unconditional Admission**

Unconditional admission into the Engineering Management Program is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework or and in all prior graduate work
- A minimum score of 600 on the GRE quantitative section and 400 on the GRE verbal section
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language
- Adequate preparation in mathematics, science, and engineering or other appropriate field. Industrial experience is preferred.

### **Probationary Admission Criteria**

Prospective Engineering Management students not meeting the conditions for unconditional admission may be granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must maintain a GPA of at least 3.0 for the first 9 hours completed at UT Arlington. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.

### **Provisional Admission**

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferral**

The admission decision is deferred if insufficient information is available.

### **Denial**

Prospective students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program.



## Degree Requirements

The M.S. degree in Engineering Management requires 36 hours of coursework. The coursework is divided between the Department of Information Systems and Operations Management and the Department of Industrial and Manufacturing Systems Engineering. The program includes such courses as:

- Accounting Analysis
- Engineering Management
- Engineering Economics
- Management Sciences
- Quality Management
- Product Management
- Project Management
- Management of Knowledge and Technology
- Simulation and Optimization
- Technology Development and Deployment

## Program in Logistics

The Logistics Program is designed to meet an increasing state, national, and international demand for professionals with technical or business education and experience in the area of logistics and supply chain. Such professionals will need a unique combination of technical and business knowledge and skills and will have technical experience and degrees in engineering, mathematics or business.

Logistics is an interdisciplinary field of study which comprises the entire set of functions associated with the flow of goods, information, and payments among suppliers and consumers from organization of raw material to final recycling or disposal of finished goods. The integration of engineering and business content is done in a fashion that prepares an experienced professional engineer or manager for a leadership role in planning, developing, implementing and managing the firm's logistics and supply chain capabilities in the global marketplace. The overall purpose of the Logistics Program at UT Arlington is to provide graduates with the understanding needed to manage the firm's logistics and supply chain systems and infrastructure and to accomplish the organization's operational, strategic and competitive objectives.

## Admission

### Unconditional Admission

Unconditional admission into the M.S. Logistics program is granted if all of the following conditions are met.

- A GPA of at least 3.0 in the last 60 hours of undergraduate coursework or prior graduate work.
- A minimum score of 600 on the GRE quantitative section and 400 on the GRE verbal section or 500 on the GMAT.
- A minimum score of 500 on the handwritten TOEFL (213 on the computer-based version or 79 on the TOEFL iBT) if English is not the applicant's native language.
- Adequate preparation in mathematics, science, and engineering or other appropriate field, and three years of experience.

### Probationary Admission Criteria

Prospective students not meeting the conditions for unconditional admission may be granted probationary admission if their GPA is 2.6 or greater. Students granted probationary admission must maintain a GPA of at least 3.0 for the first 9 hours completed at UT Arlington. Other conditions, such as deficiency courses, may be specified by the Graduate Advisor.



### **Provisional Admission**

An applicant unable to supply all required official documentation prior to the admission deadline, but whose available documentation otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferral**

The admission decision is deferred if insufficient information is available.

### **Denial**

Prospective students with a GPA below 2.6 may be denied admission at the discretion of the Graduate Advisor. The Graduate Advisor may grant probationary admission if other factors suggest a potential for success in the graduate program.

### **Degree Requirements**

The M.S. degree in Logistics requires 36 hours of coursework. The coursework is divided between the Department of Industrial and Manufacturing Systems Engineering and the Department of Information Systems and Operations Management. The program includes such courses as:

- Probability and Statistics
- Operations Research
- Production and Inventory Control
- Production Systems Design
- Enterprise Modeling
- Logistics Information Systems
- Logistics Transportation Systems Design
- Logistics Distribution Systems Design
- Business Logistics
- Purchasing and Materials Management
- Supply Chain Management Approved Electives

## **IE Courses**

### **IE5191 – ADVANCED STUDIES IN INDUSTRIAL ENGINEERING**

1 Lecture Hour · 0 Lab Hours

Individually approved research projects and reading courses in industrial engineering. Such individual studies will be graded A, B, C, D, F or X. Subject to the approval of the Graduate Advisor, IE 5191, 5291 and 5391 may be repeated as the topics change. In addition, work on a thesis substitute will be performed under IE 5391. In this case, IE 5391 is graded P/F/R.

### **IE5291 – ADVANCED STUDIES IN INDUSTRIAL ENGINEERING**

2 Lecture Hours · 0 Lab Hours

Individually approved research projects and reading courses in industrial engineering. Such individual studies will be graded A, B, C, D, F or X. Subject to the approval of the Graduate Advisor, IE 5191, 5291 and 5391 may be repeated as the topics change. In addition, work on a thesis substitute will be performed under IE 5391. In this case, IE 5391 is graded P/F/R.

### **IE5300 – TOPICS IN INDUSTRIAL ENGINEERING**

3 Lecture Hours · 0 Lab Hours

A study of selected topics in industrial engineering. May be repeated when topics vary. Prerequisite: consent of instructor and Graduate Advisor.

### **IE5301 – ADVANCED OPERATIONS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

A survey of quantitative methods to develop modeling and decision-making skills. Topics include z-transforms and difference equations, Markov Chains, decision analysis techniques, goal programming, game theory, queuing theory and nonlinear programming. Prerequisites: Both IE 3301 and IE 3315 OR IE 5317 or equivalent.

### **IE5303 – QUALITY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Principles and practices of industrial quality control. Topics include the Deming philosophy, process improvements, statistical process control, process capability analysis and product acceptance. Prerequisite: IE 3301, or IE 5317, or equivalent.

### **IE5304 – ADVANCED ENGINEERING ECONOMY**

**3** Lecture Hours · **0** Lab Hours

Analysis of capital investments in engineering and technical projects. Topics include decision analysis methods, cash flows, revenue requirements, activity-based analysis, multi-attribute decisions, probabilistic analysis and sensitivity/risk analysis. Prerequisite: graduate standing.

### **IE5305 – LINEAR PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours

Theory and applications of linear programming including the simplex method, computational complexity, column generation and integer programming. Prerequisite: IE 3315 or IE 5317.

### **IE5306 – DYNAMIC OPTIMIZATION**

**3** Lecture Hours · **0** Lab Hours

Dynamic optimization methods including dynamic programming, the calculus of variations, and optimal control theory. Emphasis is on the modeling and solution of practical problems using these techniques. Prerequisites: IE 3301 and IE 3315, or IE 5317, or equivalent.

### **IE5307 – QUEUEING THEORY**

**3** Lecture Hours · **0** Lab Hours

The fundamentals of queueing theory including Markovian birth-death models, networks of queues, and general arrival and service distributions. Prerequisites: IE 3301 or IE 5317, or equivalent.

### **IE5309 – STOCHASTIC PROCESSES**

**3** Lecture Hours · **0** Lab Hours

The study of probabilistic model building including the fundamentals of both discrete and continuous Markov chains, queueing theory and renewal theory. Prerequisites: IE 3301 or IE 5317, or equivalent.

### **IE5310 – PRODUCTION SYSTEMS DESIGN**

**3** Lecture Hours · **0** Lab Hours

Methods for the design and analysis of manufacturing and logistics systems. Emphasis is placed on reducing cycle time, increasing throughput, lowering variation, and improving both quality and customer responsiveness through modeling techniques. Prerequisites: IE 5317 or equivalent, IE 5301 or concurrent and IE 5329 or concurrent or equivalent.

### **IE5311 – DECISION ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A survey of methods for making optimal decisions. Topics include decision models, formal logic, fuzzy

controls, statistical decision theory, game theory, multiobjective decisions, stochastic programming, information theory and qualitative aspects of the decisions. Prerequisites: IE 5301 or concurrent.

### **IE5312 – PLANNING AND CONTROL OF ENTERPRISE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

A continuation of IE 5329 covering enterprise resource planning systems (ERP) and other advanced production control techniques. Computer modeling is emphasized. Prerequisite: IE 5329

### **IE5313 – RELIABILITY AND ADVANCED QUALITY CONTROL TOPICS**

**3** Lecture Hours · **0** Lab Hours

Includes advanced quantitative topics in reliability design and quality control. Management of reliability and quality control functions are also included. Prerequisites: IE 4308 or IE 5303.

### **IE5314 – SAFETY ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Methods to identify, measure, analyze, and evaluate safety hazards in the workplace. Scientific and managerial methods to prevent or control safety hazards. Prerequisite: graduate standing.

### **IE5317 – INTRODUCTION TO STATISTICS AND OPERATIONS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Topics include descriptive statistics, set theory, combinatorics, mathematical expectation, probability distributions, confidence interval estimation, linear programming, the simplex and dual simplex algorithms, transportation and assignment problems, integer programming, and network analysis. Prerequisite: Math 2326 or equivalent and permission of advisor.

### **IE5318 – APPLIED REGRESSION ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An in-depth study of one predictor variable followed by the matrix approach to multiple linear regression. Topics include estimation, prediction, analysis of variance, residual analysis, transformations, multicollinearity, model selection, weighted least squares, ridge regression, and robust regression. Prerequisite: IE 3301 or IE 5317 or equivalent.

### **IE5319 – ADVANCED STATISTICAL PROCESS CONTROL AND TIME SERIES ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Design of control schemes for statistical monitoring and control of modern manufacturing systems. Topics include charts for process control, effect of autocorrelation on SPC charts, and sampling plans for acceptance inspection. Prerequisite: IE 3301 and IE 5303 or equivalent.

### **IE5320 – ENTERPRISE ENGINEERING METHODS**

**3** Lecture Hours · **0** Lab Hours

A survey of enterprise engineering methods. Topics include system development methodology, discussion of enterprise architectures, activity modeling, business modeling, activity-based performance analysis, and process improvement. Prerequisite: Graduate standing.

### **IE5321 – ENTERPRISE ANALYSIS AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

An in-depth study of techniques useful for the analysis and design of the manufacturing enterprise. This course presents an advanced process description technique that is used, with simulation and activity based costing, to facilitate analysis and design. Prerequisites: IE 5320 and IE 5322, or concurrent enrollment.

### **IE5322 – SIMULATION AND OPTIMIZATION**

**3 Lecture Hours · 0 Lab Hours**

An in-depth study of discrete event simulation theory and practice. Optimization and search techniques used in conjunction with simulation experiments are introduced. A commercial simulation software application is used. Prerequisite: IE 5317 or equivalent.

### **IE5326 – INDUSTRIAL BIOMECHANICS**

**3 Lecture Hours · 0 Lab Hours**

The development and application of biomechanical models of physical work tasks, especially manual materials handling and hard-arm work activities. Prerequisite: Graduate Standing.

### **IE5329 – PRODUCTION AND INVENTORY CONTROL SYSTEMS**

**3 Lecture Hours · 0 Lab Hours**

The fundamentals of production and inventory control systems. The economic impacts of fluctuating demand, supply availability and production rates are examined. Prerequisite: graduate standing.

### **IE5330 – AUTOMATION AND ADVANCED MANUFACTURING**

**2 Lecture Hours · 3 Lab Hours**

The design of automated and advanced production processes for manufacturing. Topics include numerical control, robotics, group technology, just-in-time, automated inspection and flexible manufacturing systems. Prerequisite: graduate standing.

### **IE5331 – INDUSTRIAL ERGONOMICS**

**3 Lecture Hours · 0 Lab Hours**

The analysis and design of physical work, workplace, and hand tools using ergonomic principles for enhancing performance, health, and safety. Work refers mainly to whole body and hand-arm activities, while workplace refers to industrial and computerized office environments. Applications focus on people's anthropometric, musculoskeletal and psychological characteristics. Prerequisite: Graduate standing.

### **IE5332 – NONLINEAR PROGRAMMING**

**3 Lecture Hours · 0 Lab Hours**

Methods for nonlinear optimization including classical theory; gradient methods; sequential unconstrained methods; convex programming; genetic algorithms; simulated annealing; and separable, quadratic, and geometric programming. Prerequisite: graduate standing.

### **IE5333 – LOGISTICS TRANSPORTATION SYSTEMS DESIGN**

**3 Lecture Hours · 0 Lab Hours**

The design and analysis of domestic and international transportation systems of people, processes, and technology. Topics include the role of transportation in the extended enterprise, transportation modeling and optimization techniques, value-added supply chain issues, and financial performance measures. Prerequisites: IE 5317 or equivalent, IE 5301 or concurrent, and IE 5329 or concurrent, or equivalent.

### **IE5334 – LOGISTICS DISTRIBUTION SYSTEMS DESIGN**

**3 Lecture Hours · 0 Lab Hours**

The design and analysis of distribution systems of people, processes and technology. The focus is on distribution, warehousing and material handling. Topics include the role of the warehouse in the extended enterprise, warehouse planning, process design, layout, equipment selection, workforce and workplace issues, and financial performance measures. Prerequisites: IE 5317 or equivalent, IE 5301 or concurrent, and IE 5329 or concurrent, or equivalent.

### **IE5335 – ADVANCED OCCUPATIONAL ENVIRONMENTAL HYGIENE ENGINEERING**

**3 Lecture Hours · 0 Lab Hours**

Interaction of workers with physical environmental agents such as heat, cold, noise, vibration, illumination, radiation, and gravity. The design of work and the workplace to control environmental stresses, and their effects on workers' performance, health and safety. Prerequisite: graduate standing.

### **IE5338 – HUMAN ENGINEERING**

**2** Lecture Hours · **3** Lab Hours

Human structural, physiological, psychological, and cognitive capacities and limitations in the workplace, and their effects on the design of work systems to enhance productivity, and maintain health and safety. Prerequisite: IE 3301 or equivalent, or consent of instructor.

### **IE5339 – PRODUCT DESIGN, DEVELOPMENT, PRODUCIBILITY, AND RELIABILITY DESIGN**

**3** Lecture Hours · **0** Lab Hours

This course covers product development and engineering design process with a focus on collaborative design. Software, manufacturing, reliability, testing, logistical and product support considerations are emphasized. Prerequisite: graduate standing.

### **IE5342 – METRICS AND MEASUREMENT**

**3** Lecture Hours · **0** Lab Hours

Work measurement, methods improvements, and performance measurement. A survey of enterprise and management measurement systems is presented. Prerequisite: IE 5317 or equivalent.

### **IE5345 – MANAGEMENT OF KNOWLEDGE AND TECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Review of contemporary issues in knowledge management, databases, decision support systems, and intelligent systems. Topics include knowledge acquisition, intelligent database design, decision support systems, data mining, knowledge transfer, and collaborative development. Prerequisite: graduate standing.

### **IE5346 – TECHNOLOGY DEVELOPMENT AND DEPLOYMENT**

**3** Lecture Hours · **0** Lab Hours

Review of management issues in developing and implementing new technologies and methodologies into an organization. Topics include technology forecasting, management of technology based projects, technological competitiveness, technology alliances, and collaboration. Prerequisite: graduate standing.

### **IE5350 – GRADUATE DESIGN CAPSTONE**

**3** Lecture Hours · **0** Lab Hours

Practicum in Industrial Engineering techniques consisting of professional level experience in a relevant company, agency, or institution. This technical experience is directed by a supervising professor and requires the writing of a professional report. Prerequisite: 24 hours of graduate work in Industrial Engineering.

### **IE5351 – INTRODUCTION TO SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course includes a survey of concepts, principles and processes required to engineer complex systems throughout the life-cycle from concept through disposal. Prerequisite: graduate standing and permission of advisor.

### **IE5352 – SYSTEMS ENGINEERING I**

**3** Lecture Hours · **0** Lab Hours

A study of systems engineering topics including technical planning and management, supply processes, requirements definition and analysis, functional analysis, and trade-off analysis. Prerequisite IE 5351.

## **IE5353 – SYSTEMS ENGINEERING II**

**3** Lecture Hours · **0** Lab Hours

A continuation of IE 5352. Topics include risk management, systems design and implementation, acquisition processes, assessment and control, earned value management, technical process management, and enabling products. Prerequisite: IE 5352.

## **IE5354 – SYSTEMS ENGINEERING III**

**3** Lecture Hours · **0** Lab Hours

A continuation of IE 5353. Topics include system verification, validation and transition to use, specialty engineering, improving SE processes, SE and relationships to international programs, object oriented systems engineering and configuration management. A comprehensive student project is required. Prerequisite IE 5353.

## **IE5391 – ADVANCED STUDIES IN INDUSTRIAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects and reading courses in industrial engineering. Such individual studies will be graded A, B, C, D, F or X. Subject to the approval of the Graduate Advisor, IE 5191, 5291 and 5391 may be repeated as the topics change. In addition, work on a thesis substitute will be performed under IE 5391. In this case, IE 5391 is graded P/F/R.

## **IE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

## **IE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P, F, R.

## **IE6197 – RESEARCH IN INDUSTRIAL ENGINEERING**

**1** Lecture Hour · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

## **IE6297 – RESEARCH IN INDUSTRIAL ENGINEERING**

**2** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

## **IE6301 – ENTERPRISE ARCHITECTURES AND FRAMEWORKS**

**3** Lecture Hours · **0** Lab Hours

A survey of enterprise architectures and analysis frameworks that have been proposed for the integration of large complex enterprise systems. Emphasis is placed on state-of-the-art approaches. Prerequisite: IE 5320.

## **IE6302 – FACILITIES PLANNING AND DESIGN**

**3** Lecture Hours · **0** Lab Hours

Facilities planning through layout design. Product flow, space-activity relationships, personnel requirements, and material handling are considered, as well as receiving, shipping, warehousing, and integration with manufacturing. Facilities planning models are explored. Prerequisite: IE 5317 or equivalent, IE 5301 or concurrent, and IE 5329, or concurrent or equivalent.

## **IE6303 – COMBINATORIAL OPTIMIZATION**

**3** Lecture Hours · **0** Lab Hours

A survey of problems and algorithms in combinatorial optimization. Topics include shortest paths, minimum-weight spanning trees, matroids, matchings, optimal assignments and set packing. Prerequisite: IE 5305 or consent of instructor.

### **IE6305 – ENGINEERING MANAGEMENT I**

**3** Lecture Hours · **0** Lab Hours

The management of the engineering function in high-technology industry with principal emphasis on the historical development of industrial management principles, decision-making and planning. Prerequisite: Graduate standing.

### **IE6306 – ENGINEERING MANAGEMENT II**

**3** Lecture Hours · **0** Lab Hours

The management of the engineering function in high-technology industry with principal emphasis on human resources and staffing, directing and leading, and controlling. Prerequisite: IE 6305.

### **IE6308 – DESIGN OF EXPERIMENTS**

**3** Lecture Hours · **0** Lab Hours

Introduction to statistical design and analysis of experiments with applications from engineering, health care and business. Analysis includes analysis of variance, multiple comparisons and model adequacy. Designs include complete factorial, complete block, incomplete block, Latin square, Youden, two-level fractional factorial and hierarchically nested. Prerequisite: IE 5318 or consent of instructor.

### **IE6309 – RESPONSE SURFACE METHODOLOGY AND COMPUTER EXPERIMENTS**

**3** Lecture Hours · **0** Lab Hours

Empirical model building and process optimization using experimental design and statistical modeling. The first half of the course covers first and second order models and designs, multiresponse experiments and mixture experiments. The second half introduces designs based on Latin hypercubes, orthogonal arrays, and number-based theoretic methods, plus models using kriging, multivariate adaptive regression splines and neural networks. Prerequisite: IE 6308.

### **IE6310 – INDUSTRIAL APPLICATIONS**

**2** Lecture Hours · **3** Lab Hours

Project oriented course focusing on the requirements and selection criteria for the integration of technology into simple and complex industrial activities. Prerequisite: IE 5330

### **IE6397 – RESEARCH IN INDUSTRIAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

### **IE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

### **IE6697 – RESEARCH IN INDUSTRIAL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

### **IE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P, W.

### **IE6997 – RESEARCH IN INDUSTRIAL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Supervised research projects directed toward the dissertation. Graded P, R, F.

### **IE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded P, F, R.

### **IE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Materials Science and Engineering

College of Engineering

### Chair Efstathios Meletis

Web [www.uta.edu/mse/](http://www.uta.edu/mse/)

Email [mse@uta.edu](mailto:mse@uta.edu)

Phone 817.272.2398

Fax 817.272.2538

[231 Engineering Lab Building](#)

---

### Degrees / Certificates

#### Master's Degrees

Materials Science and Engineering, M.Engr.

Materials Science and Engineering, M.S.

#### Doctoral Degrees

Materials Science and Engineering, B.S. to Ph.D.

Materials Science and Engineering, Ph.D.

---

### Graduate Faculty

[Duane Dimos](#)

[Kyungsuk Yum](#)

#### Professor

[Pranesh Aswath](#)

[Ronald Elsenbaumer](#)

[Choong-Un Kim](#)

[Efstathios Meletis](#)

#### Associate Professor

[Yaowu Hao](#)

[Seong Jin Koh](#)

#### Assistant Professor

[Fuqiang Liu](#)

#### Research Professor

[Nai Yuen Chen](#)

[Wiley P Kirk](#)

[Harry Fred Tibbals](#)

---

### Graduate Advisors

[Natalie Burden](#)

*Materials Science and Engineering, B.S. to Ph.D.*

*Materials Science and Engineering, Ph.D.*

**Seong Jin Koh**

*Materials Science and Engineering, M. Engr.*

*Materials Science and Engineering, M.S.*

*Materials Science and Engineering, Ph.D.*

---

## Department Information

### Courses

# Department Information

### Objective

#### Admission

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred**
- **Denial of Admission**
- **Waiver of Graduate Record Exam**
- **Eligibility for Scholarships/Fellowships**

#### Continuation

#### Degree Requirements

- **Master's Degrees**
- **B.S. to Ph.D. Track**
- **Doctor of Philosophy**

### Objective

The graduate program in materials science and engineering is designed to provide students with a fundamental understanding of phenomena occurring in materials and their associated chemical, electrical, mechanical, and physical properties. The master's program prepares students for professional careers in materials science and engineering or for additional studies at the doctoral level.

Candidates for a master's or doctoral degree may elect programs emphasizing metals, polymers, ceramics, composite materials, or electronic materials, as well as a number of other areas. Although the program is administered through the College of Engineering, it is broadly interdisciplinary, actively involving faculty in both the College of Science and the College of Engineering. In addition to materials science and engineering courses, applicable courses are in the disciplines of aerospace engineering, biomedical engineering, chemistry, civil engineering, computer science engineering, electrical engineering, mechanical engineering, and physics.

### Admission

Applicants for the master's or doctoral degrees must have either a baccalaureate or master's degree in engineering or science. Applicants who have completed a bachelor's degree and wish to

pursue a doctoral degree without completing a master's degree may apply for admission into the B.S. to Ph.D. Track. The minimum admission requirements to this highly competitive track are the same as those for all doctoral applicants. Doctoral candidates shall also demonstrate through previous academic preparation the potential to carry out independent research in materials science and engineering. All applicants must meet the general requirements of the Graduate School as stated in the section of this catalog entitled "Admission Requirements and Procedures." Applicants not meeting all criteria may be admitted on a provisional or probationary basis.

For applicants with no prior training in engineering or with insufficient undergraduate materials coursework, the same minimum criteria will apply. Additionally, their records will be reviewed in relation to their materials backgrounds, and probationary status with specific remedial work required may be a basis for acceptance of such applicants.

The UT Arlington Materials Science and Engineering Program uses the following guidelines in the admission review process:

### **Unconditional Admission**

Unconditional admission into the Materials Science and Engineering Program requires the submission of items 1 through 5 below for each degree program. A typical successful applicant will have met the following admission requirements:

#### **Master's Program**

1. Minimum undergraduate GPA of 3.0 in the last 60 hours of undergraduate work in an appropriate engineering or science discipline. (For some international applicants where GPA calculation based on a 4.0 scale is not performed, a minimum performance level of 70 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core materials-related courses is of particular importance.
2. A GRE score of at least 400 (verbal) and 700 (quantitative). For those applicants whose GRE verbal score falls below 400, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable, veracious recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

#### **Doctoral Program**

1. Minimum undergraduate GPA of 3.3 in the last 60 hours of undergraduate work in an appropriate engineering or science discipline. (For some international applicants where GPA calculation based on a 4.0 scale is not performed, a minimum performance level of 75 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core materials-related courses is of particular importance.
2. A GRE score of at least 425 (verbal) and 750 (quantitative). For those applicants whose GRE verbal score falls below 425, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable, veracious recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS

English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

### Probationary Admission

Probationary admission into the Materials Science and Engineering Program may be permitted under the following conditions for each degree program:

#### Master's Program

1. If an applicant meets any two of the items 1, 2, and 3 above for the master's program.
2. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
3. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

#### Doctoral Program

1. If an applicant meets any two of the items 1, 2, and 3 above for the doctoral program.
2. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
3. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores of 22 for writing, 21 for speaking, 20 for reading, and 20 for listening.

### Provisional Admission

An applicant who is unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Deferred

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

### Denial of Admission

A candidate may be denied admission if he/she has less than satisfactory performance in two out of three of the first three admission criteria.

### Waiver of Graduate Record Exam

A waiver of the Graduate record Exam may be considered for a UT Arlington graduate who graduated within the past three years and has completed an engineering or science degree closely related to materials science and engineering. The student's GPA must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study and (2) in all undergraduate coursework completed at UT Arlington. The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees (with GPA of 3.3 or above) from U.S. universities with an ABET accredited engineering program or other select U.S. universities subject to graduate advisor's approval. The waiver of the GRE applies only to applicants for the master's degree programs. Interested applicants should contact the Materials Science and Engineering Graduate Advisor.

## Eligibility for Scholarships/Fellowships

Students that are admitted will be eligible for available scholarship or fellowship support. Award of scholarships or fellowships will be based on the student's relative standing with respect to other qualified applicants.

## Continuation

The Materials Science and Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified professional engineers and scientists, has established certain policies and procedures. In addition to the requirements of the Graduate School listed elsewhere in this catalog, to continue in the program each materials science and engineering graduate student must:

1. Maintain at least a B (3.0) overall GPA in all coursework, and
2. Demonstrate suitability for professional practice.

At such time as questions are raised by materials science and engineering graduate faculty regarding either of the above, the student will be notified and will be given the opportunity to respond to the Committee on Graduate Studies for Materials Science and Engineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "[Grievances Other than Grades.](#)"

## Degree Requirements

### Master's Degrees

**Master of Science in Materials Science and Engineering:** The Master of Science degree is a research-oriented degree in which completion of a thesis is mandatory. The program consists of a minimum of 24 credit hours of coursework (a minimum of 18 credit hours in MSE courses) and an acceptable thesis (minimum of six credit hours).

**Master of Engineering in Materials Science and Engineering:** The Master of Engineering degree is an engineering practice-oriented program requiring a minimum of 36 credit hours (A minimum of 24 credit hours of coursework must be in MSE courses.). A maximum of six hours may be a special project (MSE 5394 and MSE 5395).

**MSE 5300 Introduction to Materials Science and Engineering:** This course must be taken by any students whose academic backgrounds are different from Materials Science and Engineering. An exemption may be granted by the Graduate Advisor if it is determined that the student has a solid foundation for Materials Science and Engineering. The credit for MSE 5300 will not be counted towards the total credits required for graduation. However, the grade of MSE 5300 will be counted in calculating the GPA.

The M.S. and M. Engr. degree programs require successful completion of the following four core courses:

- MSE 5304. Analysis of Materials
- MSE 5305. Solid State Physics and Thermodynamics of Materials
- MSE 5312. Mechanical Behavior of Materials
- MSE 5321. Phase Transformations of Materials

### B.S. to Ph.D. Track

In addition to the requirements listed below for the Ph.D. degree, a B.S.-Ph.D. Track student will be required to enroll in at least three hours of research each semester during the student's first two years, receiving a pass/fail grade (no R grade) in these hours. A B.S.-Ph.D. student must have a faculty research (dissertation) advisor prior to the start of the student's second full semester. A

B.S.-Ph.D. student must take the Ph.D. diagnostic examinations prior to the start of the student's third full semester.

## Doctor of Philosophy

The Ph.D. degree program involves an interdisciplinary and multidisciplinary approach which requires students to complete a set of Materials Science and Engineering core courses augmented by elective offerings in aerospace engineering, biomedical engineering, chemistry, civil engineering, electrical engineering, materials science, mechanical engineering and physics. The degree is a research degree which requires the candidate successfully to carry out independent research in an area acceptable to the Committee on Graduate Studies for Materials Science and Engineering. A student's research is directed by a faculty member from any of the departments or programs participating in the Materials Science and Engineering Program.

The Ph.D. degree program requires successful completion of the following curriculum components:

1. A minimum of 24 semester hours of graduate coursework is expected for students entering with an appropriate master's degree or, for highly qualified students, a minimum of 42 semester hours of graduate coursework is expected for student's entering with a bachelor's degree, as approved by the Committee on Graduate Studies for Materials Science and Engineering. The 42 semester hours may include MSE 5392 and MSE 5393. Additional coursework may be required by the student's doctoral dissertation committee.

2. Four core courses or their equivalent are required for all doctoral students:

MSE 5304. Analysis of Materials  
MSE 5305. Solid State Physics and Thermodynamics of Materials  
MSE 5312. Mechanical Behavior of Materials  
MSE 5321. Phase Transformations of Materials

3. One of these two courses is required for all doctoral students:

MSE 5345. Ceramic Materials  
MSE 5347. Polymer Materials Science

4. Three of the following supplemental elective courses must be taken by all doctoral students, as approved by the Committee on Graduate Studies for Materials Science and Engineering. Courses from other disciplines may also be taken, which requires permissions from the Graduate Advisor and student's Supervising Advisor.

MSE 5315. Fatigue of Engineering Materials  
MSE 5316. Tribology and Coatings  
MSE 5320. Nanoscale Materials  
MSE 5330. Fundamentals of Corrosion Science and Engineering  
MSE 5333. Magnetic Properties of Materials  
MSE 5336. Electrical Properties of Materials  
MSE 5341. Transmission Electron Microscopy in Materials Science  
MSE 5345. Ceramic Materials  
MSE 5347. Polymer Materials Science  
MSE 5351. Current Topics in Nanotechnology  
MSE 5352. Solar Energy Materials and Devices  
MSE 5353. Fundamentals of Sustainable Energy  
MSE 5354. Solid State Electronic Devices  
MSE 5355. Materials for Energy

- Elective courses will be taken by all doctoral students which will allow specialization within a particular academic discipline. Graduate courses in chemistry, physics and engineering will be selected for this purpose in consultation with the student's research advisor, subject to approval by the Committee on Graduate Studies for Materials Science and Engineering.
- MSE 5300 Introduction to Materials Science and Engineering: This course must be taken by any students whose academic backgrounds are different from Materials Science and Engineering. An exemption may be granted by the



Graduate Advisor if it is determined that the student has a solid foundation for Materials Science and Engineering. The credit for MSE 5300 will not be counted towards the total credits required for graduation. However, the grade of MSE 5300 will be counted in calculating the GPA.

After completion of the first year's coursework (i.e., core courses), students must satisfactorily complete diagnostic examinations which may be written or oral or written and oral with a supplemental interview with faculty members, as determined by the Committee on Graduate Studies in Materials Science and Engineering.

Upon completion of all or nearly all of the coursework requirements and after having demonstrated research ability through partial completion of dissertation research, a student must satisfactorily complete a comprehensive examination.

The dissertation research will be formulated in conjunction with the student's faculty research advisor who may be associated with any of the following academic disciplines participating in the Materials Science and Engineering Program: aerospace engineering, biomedical engineering, chemistry, civil engineering, electrical engineering, materials science, mechanical engineering, and physics. The dissertation research represents the culmination of the student's academic efforts and is expected to demonstrate original and independent research activity and be a significant contribution to knowledge in the field.

## MSE Courses

### MSE5141 – TRANSMISSION ELECTRON MICROSCOPY LAB

0 Lecture Hours · 1 Lab Hour

Specimen preparation. Operation of the transmission electron microscope. Beam alignment and rotation calibration. Bright field and dark field imaging. Weak beam imaging. Examination of defects.

### MSE5190 – SPECIAL TOPICS IN MATERIALS SCIENCE AND ENGINEERING

1 Lecture Hour · 0 Lab Hours

May be repeated for credit when topic changes.

### MSE5191 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING

1 Lecture Hour · 0 Lab Hours

Topics selected from various areas of materials science and engineering. Work performed as a thesis substitute normally will be accomplished under the course number 5391, with prior approval of the Committee on Graduate Studies.

### MSE5192 – MASTER'S COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Directed study, consultation, and comprehensive examination over coursework leading to the Master of Engineering degree in Materials Science and Engineering. Required of all Master of Engineering students in the semester they plan to graduate.

### MSE5193 – SEMINAR IN MATERIALS SCIENCE AND ENGINEERING

1 Lecture Hour · 0 Lab Hours

Selected topics in materials science and engineering presented by faculty, students, and invited lecturers.

### MSE5290 – SPECIAL TOPICS IN MATERIALS SCIENCE AND ENGINEERING

2 Lecture Hours · 0 Lab Hours

May be repeated for credit when topic changes.

### **MSE5291 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING**

2 Lecture Hours · 0 Lab Hours

Topics selected from various areas of materials science and engineering. Work performed as a thesis substitute normally will be accomplished under the course number 5391, with prior approval of the Committee on Graduate Studies.

### **MSE5300 – INTRODUCTION TO MATERIALS SCIENCE AND ENGINEERING**

3 Lecture Hours · 0 Lab Hours

Physical, mechanical, electrical, optical, magnetic, thermal, and chemical properties of metals, semiconductors, ceramics, polymers, composites, and aggregates and the relationships between these properties and the electronic, crystal, micro- and macro-structures of the materials.

### **MSE5304 – ANALYSIS OF MATERIALS**

2 Lecture Hours · 3 Lab Hours

Theoretical understandings and practical applications of various characterization techniques to materials analysis, ranging from x-rays and electron diffraction, x-ray spectroscopy, and surface topography, are discussed. Practice of these techniques in lab class typically includes SEM spectroscopy, powder diffraction, Laue diffraction, and the double crystal x-ray diffraction.

### **MSE5305 – SOLID STATE PHYSICS AND THERMODYNAMICS OF MATERIALS**

3 Lecture Hours · 0 Lab Hours

Fundamentals of Solid State Physics and principles of classical thermodynamics and statistical thermodynamics.

### **MSE5310 – DISLOCATION THEORY**

3 Lecture Hours · 0 Lab Hours

Theory of dislocations and their reactions and interactions in crystalline materials developed and extended into a basic understanding of mechanical properties of crystalline materials.

### **MSE5312 – MECHANICAL BEHAVIOR OF MATERIALS**

3 Lecture Hours · 0 Lab Hours

Concepts of stress and strain, theory of plasticity. Elementary dislocation theory. Deformation of single crystals. Strengthening mechanisms like solid solution strengthening, precipitation hardening, etc. Elementary concepts in fracture mechanics. Microscopic aspects of fracture, fatigue, and creep of materials.

### **MSE5314 – FRACTURE MECHANICS**

3 Lecture Hours · 0 Lab Hours

Theory and applications of linear elastic fracture mechanics. Topics include stress analysis of cracks, crack-tip plasticity, fatigue and stress corrosion. Applicability to materials selection, failure analysis and structural reliability reviewed.

### **MSE5315 – FATIGUE OF ENGINEERING MATERIALS**

3 Lecture Hours · 0 Lab Hours

Cyclic deformation, fatigue crack initiation and growth in ductile solids. Application of fracture mechanics to fatigue. Mechanisms of crack closure. Variable and multiaxial fatigue and corrosion fatigue. Fatigue of brittle solids.



### **MSE5316 – TRIBOLOGY, LUBRICATION AND COATINGS**

**3** Lecture Hours · **0** Lab Hours

The course aims to provide a comprehensive understanding of the Tribology and Lubrication process in materials. This course will employ theoretical and practical examples. Mechanism of coating deposition for tribological, oxidation and corrosion protection. Prerequisite: Permission of Instructor.

### **MSE5320 – NANOSCALE MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the synthesis, properties and applications of inorganic thin films and nanoparticles.

### **MSE5321 – PHASE TRANSFORMATIONS OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

The theory of homogeneous and heterogeneous transformations, nucleation and growth, martensitic transformations, heat treatment and control of microstructure.

### **MSE5330 – CORROSION**

**3** Lecture Hours · **0** Lab Hours

Quantitative application of electrochemical principles to corrosion reactions. Effects of metallurgical factors and environmental conditions on oxidation, erosion, and cracking discussed along with materials selection.

### **MSE5331 – FERROELECTRIC DEVICES**

**2** Lecture Hours · **3** Lab Hours

Crystallography and its relation to ferroelectrics, effects of crystal symmetry on crystal properties, isotropic and anisotropic properties, matrix and tensor representation of physical properties, transformation of axes, principal axes of tensor, crystal properties in matrix notation, matrix method, electrostatics, thermodynamics of electrification, origin of spontaneous polarization, ferroelectric materials, fabrication of ceramics and in depth discussion of representative ferroelectric, electrostrictive, dielectric and piezoelectric devices. Fabrication and characterization of piezoelectric actuator. Prerequisite: permission of instructor.

### **MSE5333 – MAGNETIC PROPERTIES OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Classical and quantum mechanical understandings of magnetic properties of materials. Specific applications of these properties to various devices are discussed. Prerequisite: MSE 5405 or permission of instructor.

### **MSE5334 – OPTICAL PROCESSES IN SOLID MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Basic understanding of optical response of materials based on classical and quantum models. Particular focus on all phenomena involving light in semiconductors and their optoelectronic applications. Optical properties of solid materials with reduced dimensionality such as thin films and quantum wells and dots. Prerequisite: MSE 5405 or permission of instructor.

### **MSE5336 – ELECTRICAL PROPERTIES OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Advanced discussion of electronic structure, transport mechanisms in metals, semiconductors and superconductors, with applications to materials used in various electronic devices.

### **MSE5339 – FAILURE ANALYSIS AND RELIABILITY ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The basic scope of this course is to understand 1) various types of failure modes in engineering materials, 2) contributing factors to those failures and 3) analysis and detection methods employed in the relevant industries. The failure of engineering materials under discussion includes those by mechanical, electrical

and chemical load. Specific cases of discussion include materials for structural as well as microelectronics applications. Also discussed will be the method of statistical analysis and its modeling.

### **MSE5341 – TRANSMISSION ELECTRON MICROSCOPY IN MATERIALS SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Crystallography, stereographic projections, and reciprocal lattice. Specimen preparation in transmission electron microscopy. Dynamical and kinematical theories of electron diffraction. Interpretation of diffraction patterns and transmission electron micrographs. Use of the transmission electron microscope.

### **MSE5345 – CERAMIC MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Crystal structure of ceramic materials. Phase equilibria in ceramic materials. The processing of ceramics and ceramic matrix composites. Strengthening mechanisms and mechanical properties of ceramics and ceramic matrix composites including flexure, tensile, fracture toughness, fatigue, and creep.

### **MSE5346 – ADVANCED POLYMER CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Polymer synthesis and reactions including condensation, free-radical, ionic, and coordination polymerizations; principles of polymerization including thermodynamics and kinetic considerations; physical characterizations including determinations of absolute molecular weights, relative molecular weights, morphology, glass transitions, and polymer crystallinity; relationships between macromolecular structure, properties, and uses of polymeric materials. Also offered as MSE 5346. Prerequisite: CHEM 2321 and 2322 or permission of instructor.

### **MSE5347 – POLYMER MATERIALS SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Intermolecular forces of attraction in high polymers, polymer synthesis, morphology and order in crystalline polymers, mechanics of amorphous polymers, time-dependent mechanical behavior, transitional phenomena, mechanical behavior of semicrystalline polymers.

### **MSE5348 – FUNDAMENTALS OF COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Fundamental relationships between the mechanical and hygrothermal behavior and the composition of multiphase media; failure criteria. Offered as AE 5315, ME 5348, and MSE 5348. Credit will be granted only once.

### **MSE5349 – ADVANCED COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Review of current state-of-the-art applications of composites: composite structural analysis; structural properties, damage characterization and failure mechanisms; stiffness loss due to damage, notched sensitivity; delamination; impact; fatigue characteristics; composite material testing; material allowables; characteristics of composite joints. Also offered as ME 5349 and MSE 5349. Credit will be granted only once. Prerequisite: ME 5348 or MSE 5348 or AE 5315 or consent of the instructor.

### **MSE5351 – CURRENT TOPICS IN NANOTECHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Review and discussion of the latest advances in the field of nanoscale science and technology. Topics include molecular electronics, chemical and biological sensors, synthesis of nanoscale materials, carbon nanotubes, nanowires, nanoparticles, atom-wires, self-assembled monolayers, nanoscale composite materials and techniques for observing and manipulating atoms and molecules.

### **MSE5352 – SOLAR ENERGY MATERIALS AND DEVICES**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of photovoltaic devices and solar energy materials used for the devices. Topics include thermodynamics of solar energy conversion, carrier generation and recombination, the solid-state device physics of p-n junction under illumination, various state-of-the-art photovoltaic materials, simulation of photovoltaic devices, and solar module technologies.

### **MSE5353 – FUNDAMENTALS OF SUSTAINABLE ENERGY**

**3** Lecture Hours · **0** Lab Hours

Basic concepts and applications of energy generation and storage. Topics cover a broad spectrum of sustainable energy technologies, including thermal, tide, solar, biomass, wind and electrochemical devices, with emphasis on fundamentals in materials & engineering.

### **MSE5354 – SOLID STATE ELECTRONIC DEVICES**

**3** Lecture Hours · **0** Lab Hours

Fundamentals and applications of modern electronic devices. Topics include electrical properties of semiconductors, p-n junctions, field-effect transistors, bipolar junction transistors, and integrated circuits.

### **MSE5355 – MATERIALS FOR ENERGY**

**3** Lecture Hours · **0** Lab Hours

The course aims to introduce concepts and design of advanced materials for sustainable energy generation and storage systems. It will cover polymer electrolyte materials, metallic nanoparticles, semiconductors, and nano-fabrication in clean energy conversion, energy storage, fuel cells, photovoltaic cells, and other emerging energy harvesting and storage.

### **MSE5390 – SPECIAL TOPICS IN MATERIALS SCIENCE AND ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topic changes.

### **MSE5391 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Topics selected from various areas of materials science and engineering. Work performed as a thesis substitute normally will be accomplished under the course number 5391, with prior approval of the Committee on Graduate Studies.

### **MSE5392 – RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING I**

**3** Lecture Hours · **0** Lab Hours

Research course with credit granted according to work performed. The student will have to put together a research plan for the semester with approval of his/her dissertation advisor. End of semester requirement is a written report of research performed with results and discussion. A presentation at the end of the semester on research progress may be required.

### **MSE5393 – RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING II**

**3** Lecture Hours · **0** Lab Hours

Research course with credit granted according to work performed. The student will have to put together a research plan for the semester with approval of his/her dissertation advisor. End of semester requirement is a written report of research performed with results and discussion. A presentation at the end of the semester on research progress may be required. Prerequisite: MSE 5392.

### **MSE5394 – MASTER'S RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING I**

**3** Lecture Hours · **0** Lab Hours

The student will carry out a hands-on project under a guidance of his/her supervising professor. The student will need to provide a written project report. At the end of semester, the student will present his/her project results to MSE faculty members and students. The MSE faculty members will decide the grade.

### **MSE5395 – MASTER'S RESEARCH PROJECT IN MATERIALS SCIENCE AND ENGINEERING II**

**3** Lecture Hours · **0** Lab Hours

The student will carry out a hands-on project under a guidance of his/her supervising professor. The student will need to provide a written project report. At the end of semester, the student will present his/her project results to MSE faculty members and students. The MSE faculty members will decide the grade.  
Prerequisite: MSE 5394.

### **MSE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **MSE5405 – PHYS THERMO MAT**

**3** Lecture Hours · **0** Lab Hours

### **MSE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **MSE5998 – THESIS**

**0** Lecture Hours · **0** Lab Hours

### **MSE6196 – MSE INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

### **MSE6197 – ADVANCED STUDIES IN MATERIALS SCIENCE AND ENGINEERING**

**1** Lecture Hour · **0** Lab Hours

May be repeated for credit.

### **MSE6198 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**1** Lecture Hour · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

### **MSE6298 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**2** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

### **MSE6396 – MSE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

### **MSE6397 – ADVANCED STUDIES IN MATERIALS SCIENCE AND**

## **ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit.

## **MSE6398 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

## **MSE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

## **MSE6696 – MSE INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

## **MSE6698 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

## **MSE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

## **MSE6996 – MSE INTERNSHIP**

**9** Lecture Hours · **0** Lab Hours

For students participating in internship programs. May be repeated for credit.

## **MSE6998 – RESEARCH IN MATERIALS SCIENCE AND ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

Individually approved research projects in materials science and engineering. May be repeated for credit.

## **MSE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

## **MSE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Mechanical & Aerospace Engineering

College of Engineering

### Chair Erian Armanios

Web [www.uta.edu/mae/](http://www.uta.edu/mae/)

Email [info@mae.uta.edu](mailto:info@mae.uta.edu)

Phone 817.272.2561

Fax 817.272.5010

**500 West First Street**

---

### Degrees / Certificates

#### Master's Degrees

Aerospace Engineering, M.Engr.

Aerospace Engineering, M.S.

Mechanical Engineering, M.Engr.

Mechanical Engineering, M.S.

#### Doctoral Degrees

Aerospace Engineering, B.S. to Ph.D.

Aerospace Engineering, Ph.D.

Mechanical Engineering, B.S. to Ph.D.

Mechanical Engineering, Ph.D.

#### Certificates

Mech/Aerospace Unmanned Vehicle systems Certificate,

---

### Graduate Faculty

[Endel larve](#)

[Baxter Mullins](#)

[Flora Pinegar](#)

[Sunand Santhanagopalan](#)

[Robert Taylor](#)

#### Professor

[Dereje Agonafer](#)

[Erian Armanios](#)

[Wen Chan](#)

[Abdolhossein Haji-Sheikh](#)

[David Hullender](#)

[Kent Lawrence](#)

[Frank Lu](#)

[Cheng Luo](#)

[Seiichi Nomura](#)

[Bo Wang](#)

[Donald Wilson](#)

[Robert Woods](#)

[Seung You](#)

**Associate Professor**

[Bernd Chudoba](#)  
[Dragos Dancila](#)  
[Brian Dennis](#)  
[Atilla Dogan](#)  
[Haiying Huang](#)  
[Andrew Makeev](#)  
[Desheng Meng](#)  
[Panayiotis Shiakolas](#)  
[Kamesh Subbarao](#)  
[Albert Tong](#)

**Assistant Professor**

[Ashfaq Adnan](#)  
[Alan Bowling](#)  
[Robert Harris](#)  
[Ankur Jain](#)  
[Daejong Kim](#)  
[Luca Maddalena](#)  
[Luca Massa](#)  
[Hyejin Moon](#)  
[Donghyun Shin](#)  
[Bo Yang](#)

**Professor Emeritus**

[Roger Goolsby](#)

**Senior Lecturer**

[Zhen Han](#)  
[Ratan Kumar](#)  
[Nancy Michael](#)  
[Clarence Wimberly](#)

**Lecturer**

[Cecil Harris](#)

---

**Graduate Advisors**

**[Atilla Dogan](#)**

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, M.Engr.*  
*Aerospace Engineering, M.S.*  
*Aerospace Engineering, Ph.D.*

**[Seiichi Nomura](#)**

*Mechanical Engineering, M.Engr.*  
*Mechanical Engineering, M.S.*  
*Mechanical Engineering, Ph.D.*

**[Flora Pinegar](#)**

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, Ph.D.*  
*Mechanical Engineering, B.S. to Ph.D.*  
*Mechanical Engineering, Ph.D.*

---

**Department Information**

**Courses**

## Department Information

**Objective – Aerospace Engineering**



### **Admission Requirements**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred**
- **Denial of Admission**
- **Waiver of the Graduate Record Examination**
- **Criteria for Award of Fellowships and Assistantships**
- **Fast Track Program for Master's Degree in Aerospace Engineering**
- **B.S. to Ph.D. Program**

### **Core Areas in the Aerospace Engineering Program**

#### **Degree Requirements**

- **All Graduate Degrees**
- **Master of Science or Master of Engineering**
- **Requirements for the Master of Science Degree**
- **Doctor of Philosophy**

#### **Objective – Mechanical Engineering**

- **Admission Requirements**
- **Waiver of the Graduate Record Exam**
- **Criteria for Award of Fellowships and Assistantships**
- **Fast Track Program for Master's Degree in Mechanical Engineering**

#### **Continuation**

#### **Degree Requirements**

- **Core Courses**
- **Master of Science in Mechanical Engineering**
- **Master of Engineering in Mechanical Engineering**
- **Manufacturing Engineering Option**
- **Doctor of Philosophy**

### **Objective – Aerospace Engineering**

The overall objective of the graduate program in Aerospace Engineering is to develop in a student the ability to define a technical problem, establish an appropriate mathematical or experimental model based on a firm understanding of the physical nature of the problem, analyze the problem by theoretical, numerical, or experimental techniques, and evaluate the results. Although this ability is developed in the context of aerospace problems, it is applicable to the engineering of any physical system. The program is designed for a student with any of the following specific objectives:

1. A sound foundation in advanced mathematics, science, and engineering which will equip the student well for research and development work or for further advanced study toward a doctoral degree in engineering.
2. A program of advanced study which allows specialization in one of the following areas:
  - Fluid dynamics, aerodynamics and propulsion (theoretical and applied aerodynamics, gas dynamics, viscous fluid mechanics, turbulence, computational and experimental fluid dynamics, bio-fluidics, hypersonic flow theory, high-temperature gas dynamics, V/STOL and rotorcraft aerodynamics, air-breathing

and rocket propulsion);

- Structural mechanics and structures (solid mechanics, aerospace structures, structural dynamics, composite structures and material characterization, damage tolerance and durability, smart structures, structure optimization, sensor technology, high-temperature structures and materials, aeroelasticity);
  - Flight mechanics and controls (atmospheric and space flight mechanics, orbital mechanics, guidance, navigation and control);
  - Vehicle design (conceptual aircraft design, atmospheric flight vehicle design, spacecraft design, computer-aided engineering).
3. A balanced but non-specialized program of advanced study in aerodynamics, astronautics, flight dynamics, structural analysis, propulsion, and fluid mechanics, with emphasis on experimental techniques and modern mathematical analysis.

## Admission Requirements

Applicants for the master's or doctoral degrees must have either a baccalaureate or master's degree in engineering or science. Applicants who have completed a bachelor's degree and wish to pursue a doctoral degree without completing a master's degree may apply for admission in the Bachelor of Science (B.S.) to Ph.D. Track. The minimum admission requirements to this highly competitive track are the same as those for all doctoral applicants. Doctoral candidates shall also demonstrate through previous academic preparation the potential to carry out independent research in Aerospace Engineering. All applicants must meet the general requirements of the Graduate School as stated in the section of this catalog entitled "Admission Requirements and Procedures". Applicants not meeting all criteria may be admitted on a provisional or probationary basis.

For applicants with no prior training in engineering or with insufficient undergraduate Aerospace Engineering coursework, the same minimum criteria will apply. Additionally, their records will be reviewed in relation to their mathematics, engineering, and science backgrounds, and probationary status may be a basis for acceptance of such applicants, with specific undergraduate remedial work required.

The UT Arlington Aerospace Engineering Program uses the following guidelines in the admission review process:

### Unconditional Admission

**Unconditional admission into the Aerospace Engineering Program requires the submission of items 1 through 5 below for each degree program. To be unconditionally admitted, an applicant must at least meet conditions 1, 2, 3, and 4.**

#### Master's Program

1. Minimum undergraduate GPA of 3.0 in the last 60 hours of undergraduate work in an appropriate engineering or science discipline. (For some international applicants where GPA calculations based on a 4.0 system are not performed, a minimum performance level of 65 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core Aerospace Engineering courses is of particular importance.
2. A GRE score of at least 400 (verbal) and 700 (quantitative). For those applicants whose GRE verbal score falls below 400, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS

English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 20 for the listening section.

### **Doctoral Program**

1. Minimum GPA of 3.3 in the last 60 hours taken in the major field of study in an appropriate engineering or science discipline. (For some international applicants where GPA calculations based on a 4.0 system are not performed, a minimum performance level of 70 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core Aerospace Engineering courses is of particular importance.
2. A GRE score of at least 450 (verbal) and 750 (quantitative). For those applicants whose GRE verbal score falls below 450, high TOEFL scores may be considered to offset the GRE verbal score.
3. Three favorable recommendations via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, IELTS score of 7.0, or TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section, and 21 for the listening section.

### **Probationary Admission**

**Probationary admission into the Aerospace Engineering Program may be permitted under the following conditions for each degree program:**

#### **Master's Program**

1. If the applicant meets any three of the items 1, 2, 3, and 4 above for the master's program.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, IELTS score of 6.5, or TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 20 for the listening section.

#### **Doctoral Program**

1. If an applicant meets any three of the items 1, 2, 3, and 4 above for the doctoral program.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, IELTS score of 7.0, or TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section, and 21 for the listening section.

### **Provisional Admission**

An applicant who is unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### **Deferred**

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

### Denial of Admission

A candidate may be denied admission if he/she has less than satisfactory performance in two out of the first three admission criteria.

### Waiver of the Graduate Record Examination

A waiver of the Graduate Record Examination may be considered for a UT Arlington graduate who has completed a BSAE degree within the past 3 years. The student's GPA must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study and (b) in all undergraduate coursework completed at UT Arlington. The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees in Aerospace Engineering (with GPA of 3.25 or above) from U.S. universities with an ABET accredited engineering program or other select U.S. universities subject to graduate advisor's approval. The waiver of the GRE applies only to applicants for the masters degree programs. Interested applicants should contact the Aerospace Engineering Graduate Advisor.

### Criteria for Award of Fellowships and Assistantships

Applicants who demonstrate skills, experience or interests that meet the needs of the AE Graduate Program will be considered for fellowships or assistantships.

### Fast Track Program for Master's Degree in Aerospace Engineering

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in Aerospace Engineering to satisfy degree requirements leading to a master's degree in Aerospace Engineering while completing their undergraduate studies. When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to 9 hours of graduate level coursework designated by the Aerospace Engineering Program to satisfy both undergraduate and graduate degree requirements. In the limiting case, a student completing the maximum allowable hours (9) while in undergraduate status would have to take only 24 additional hours to meet minimum requirements for graduation in a 33 hour thesis master's degree program (M.S.) or 28 additional hours for a 37 hour non-thesis master's degree program (M. Engr.)

Interested UT Arlington undergraduate Aerospace Engineering students should apply to the Aerospace Engineering Program when they are within 30 hours of completing their bachelor's degrees. They must have completed at least 30 hours at UT Arlington, achieving a GPA of at least 3.0 in those courses, and have an overall GPA of 3.0 or better in all college courses. Additionally, they must have completed at least 16 hours of specified undergraduate foundation courses with a minimum GPA of 3.3 in those courses. Program details are provided in the UT Arlington Undergraduate Catalog. Contact the Undergraduate Advisor or Graduate Advisor in Aerospace Engineering for more information about the program.

### B.S. to Ph.D. Program

The B.S. to Ph.D. Program is an accelerated program in which the student bypasses the M.S. thesis and proceeds directly to the Ph.D. dissertation research. Requirements for unconditional admission to the B.S. to Ph.D. Degree Program include:

- An overall GPA, as calculated by the Graduate School, of 3.3 or higher in undergraduate coursework.
- Relevance of the student's previous degrees to the AE curriculum.
- Reputation of the universities or colleges the student has attended.
- A GRE score of at least 500 (verbal) and 750 (quantitative).
- Three satisfactory written recommendation forms from prior professors or supervisors.
- A written essay on the student's goals and reasons for pursuing graduate studies.

## Core Areas in the Aerospace Engineering Program

The four core areas in the Aerospace Engineering program along with the recommended courses in each core area are listed below:

### 1. Fluid Mechanics, Aerodynamics and Propulsion

- AE 5313 Fluid Dynamics
- AE 5342 Gas Dynamics
- AE 5326 Air-Breathing Propulsion

### 2. Solid Mechanics and Structures

- AE 5330 Finite Element Methods
- AE 5340 Structural Aspects of Design
- AE 5331 Structural Dynamics

### 3. Flight Mechanics and Controls

- AE 5302 Advanced Flight Mechanics
- AE 5362 Guidance, Navigation and Control of Aerospace Vehicles

### 4. Flight Vehicle Design

- AE 5368 Flight Vehicle Synthesis and Systems Engineering

## Degree Requirements

### All Graduate Degrees

- All entering students must be proficient in mathematics, engineering analysis, and computer programming. (*Students not meeting these requirements may be admitted on a probationary basis and given a plan of remedial undergraduate coursework*).
- No graduate credit will be granted for courses that are required in the undergraduate Aerospace Engineering curriculum.
- The Master of Science and Doctoral candidates in Aerospace Engineering shall enroll in the Graduate Seminar (AE 5101) a minimum of three times (see course description).

All candidates are required to select a Supervising Professor and obtain an approved program of work in the second full semester or after 12 hours are completed.

### Master of Science or Master of Engineering

The Department of Mechanical and Aerospace Engineering offers both the Master of Science and the Master of Engineering degrees in Aerospace Engineering.

### Requirements for the Master of Science Degree

The Master of Science (M.S.) Degree in Aerospace Engineering is a research-oriented program in which completion of a thesis is mandatory. A minimum of 33 credit hours is required as follows:

- Two core courses (one course from either core areas one or two and one course from another of the four core areas, six credit hours)
- Two math or engineering analysis courses (six credit hours)
- Four courses (twelve credit hours) related to a specialty in Aerospace Engineering
- Six credit hours of thesis. The student must enroll in AE 5398 or AE 6297 every semester in which the student is actively involved in thesis preparation or research, except that the student must enroll in AE 5698 in the semester of graduation.
- A minimum of three credit hours of Graduate Seminar (AE 5101)

### Requirements for the Master of Engineering Degree

The Master of Engineering (M.Engr.) Degree in Aerospace Engineering is an engineering practice-oriented program. A minimum of 37 credit hours is required as follows:

- Three core courses (one course each from core areas one and two and a third course from either areas three or four, nine credit hours)
- Two math/engineering analysis courses (six credit hours)
- Seven elective courses (21 credit hours) in engineering, mathematics, and/or science relating to the student's interest areas. The elective courses must include a minimum of one hour and no more than six hours of special project courses (AE 5191, 5291 or 5391).
- A minimum of one credit hour of Graduate Seminar (AE 5101)

For both the M.S. and the M. Engr. degrees, the balance of the required coursework hours may be chosen in consultation with the Supervising Professor to meet the student's needs and interests. Normally these additional elective courses should be selected from the offerings of the Program in Aerospace Engineering or the Program in Mechanical Engineering. Courses taken outside the two programs require approval of the student's Supervising Professor as well as the Graduate Advisor.

### Doctor of Philosophy

- The Ph.D. degree requires a minimum of 24 hours of graduate-level course work beyond the Master's degree, and will include a scholarly dissertation that provides a significant original contribution to Aerospace Engineering.
- The Ph.D. degree course requirement can be tailored to satisfy the individual student's aspirations in choice of the area of specialization. However, to meet the educational goals of a broad-based technical background in Aerospace Engineering, it is expected that each student will take sufficient course work to obtain in-depth knowledge in at least two core areas of Aerospace Engineering.
- Students whose background is in a field other than Aerospace Engineering must satisfy the Master's degree core requirements.
- There is no foreign language requirement for the Ph.D.
- **Diagnostic Exam:** All students entering the Ph.D. program are required to take the Ph.D. Diagnostic Exam. Students admitted into AE Ph.D. program with MS degree in Aerospace Engineering or equivalent must take the diagnostic exam at the end of the 1st semester. This exam is offered twice per year, during the week preceding the start of classes for the fall and spring semesters. Possible outcomes of this evaluation are: 1) continuation in the doctoral program, 2) approval to continue with certain specified remedial work, 3) failure with approval to retake, 4) termination in the program.
- **Comprehensive Exam:** Students are eligible to take the comprehensive examination after satisfying all requirements stipulated by the Diagnostic Exam Committee and giving evidence to their doctoral committee of adequate academic achievement by having completed all or most coursework requirements. The comprehensive examination is used to determine if the student has the necessary background and specialization required for the dissertation research and if the student can organize and conduct the research. *An applicant must pass this examination to be admitted to candidacy for the Ph.D. degree.*

### B.S. to Ph.D. Track

- In addition to the requirements listed above for the Ph.D. degree, a B.S.-Ph.D. Track student will be *required to enroll in at least three hours of research each semester during the student's first two years, receiving a pass/fail grade (no R grade) in these hours.*
- A student may be exempted from enrolling in research hours in the student's initial semester.
- A B.S.-Ph.D. Track student must have a faculty research (dissertation) advisor prior to the start of the student's second full semester.
- Students in the BS-Ph.D. program must take the Ph.D diagnostic exam within the first year from the start of their Ph.D.



## Objective – Mechanical Engineering

The graduate program provides opportunities for professional development in such forms as: instructional courses to enhance technical competence in areas of mechanical engineering practice; training through a variety of experiences in design, development, research, experimentation, and/or analysis in joint efforts with faculty and peers; specialized courses of study required for entry into career fields allied to the mechanical engineering discipline; guided individual study under faculty supervision; and supportive coursework for programs leading to careers that require interdisciplinary competence.

A student with aid from a faculty advisor plans a program that will be consistent with his or her technical interests and the available facilities and course offerings. Typically, programs are classified as:

- Thermal Science
- Fluid Science
- Mechanical Design and Manufacturing
- Solid Mechanics and Structures
- Controls and Systems

## Admission Requirements

### Admission Criteria for Master's and Ph.D. Programs

Admission to the graduate program in ME is based on equal weighting of the following five criteria:

1. An overall GPA, as calculated by the Graduate School, of 3.0 or higher in undergraduate coursework is required for admission to the M.S. program. A 3.3 GPA is required for admission to the Ph.D. program. (For some international applicants where GPA calculations based on a 4.0 system are not performed, a minimum performance level of 65 percentile for M.S. applicants and 70 percentile is expected for Ph.D. applicants. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core Mechanical Engineering courses is of particular importance.
2. A GRE score of at least 146 (400 in old scaling) (verbal) and 155 (700 in old scaling) (quantitative) for M.S. applicants, and at least 150 (450 in old scaling)(verbal) and 159 (750 in old scaling) (quantitative) for Ph.D. applicants.
3. Three satisfactory written recommendation forms from prior professors or supervisors.
4. A written essay on the student's goals and reasons for pursuing graduate studies.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. For M.S. applicants, minimum performance levels expected for each test are: TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 20 for the listening section, paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, or IELTS score of 6.5. For Ph.D. applicants, minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section, and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### Admission Status

1. Unconditional Admission: To be unconditionally admitted, an applicant must at least meet conditions 1, 2, 3, and 4.
2. Probationary Admission: M.S. applicants who fail to meet the conditions for unconditional admission, but satisfy any three of items 1, 2, 3 and 4, will be considered for probationary admission.
3. Provisionary Admission: Applicants who are unable to supply all of the required

documentation prior to the admission deadline, but who otherwise appear to meet the admission criteria, may be granted provisional admission.

4. Denial: Applicants who fail to meet at least two of the first four admission criteria will normally be denied admission.
5. Deferral: A deferred decision may be granted when an application file is incomplete or when a denied decision is not appropriate.

### **Admission Requirements for B.S. to Ph.D. Track**

1. An overall GPA, as calculated by the Graduate School, of 3.3 or higher in undergraduate coursework.
2. A GRE score of at least 150 (450 in old scaling) (verbal) and 159 (750 in old scaling) (quantitative).
3. Three satisfactory written recommendation forms from prior professors or supervisors.
4. A written essay on the student's goals and reasons for pursuing graduate studies.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### **Probationary Admission**

Probationary admission into the Mechanical Engineering Program may be permitted under the following conditions for each degree program:

#### **Masters Program**

1. If the applicant meets any three of the items 1, 2, 3 and 4 above for the masters program.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 84 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section and 20 for the listening section, paper-based TOEFL score of 550 with a TWE of 3.5, computer-based TOEFL score of 223, TSE-A score of 45, or IELTS score of 6.5.

#### **Doctoral Program and BS to PhD track**

1. If an applicant meets any three of the items 1, 2, 3, and 4 above for the doctoral program or BS to PhD track.
2. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### **Provisional Admission**

An applicant who is unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### **Deferred Admission**

If an applicant does not present adequate evidence of meeting admission requirements, the admission decision may be deferred until admission records are complete or the requirements are met.

### **Denial of Admission**



A candidate may be denied admission if he/she has less than satisfactory performance in two out of the first three admission criteria.

### **Admission Requirements for B.S. to Ph.D. Track**

The B.S. to Ph.D. program is an accelerated program in which a student proceeds directly to the Ph.D. dissertation research and bypasses the M.S. thesis. Requirements for unconditional admission to this program include the following:

1. Minimum GPA of 3.3 in the last 60 hours taken in the major field of study in an appropriate engineering or science discipline. (For some international applicants where GPA calculations based on a 4.0 system is not performed, a minimum performance level of 70 percentile is expected. This minimum expectation may be higher for some countries, where less stringent grading criteria are used.) Performance in core mechanical engineering courses is of particular importance.
2. A GRE score of at least 150 (450 in old scaling) (verbal) and 155 (750 in old scaling) (quantitative).
3. Three favorable, veracious recommendations, via the university's recommendation form or via recommendation letter.
4. A Statement of Purpose detailing the applicant's background, education, professional goals, technical interests, and research interests.
5. An applicant whose native language is not English must submit TOEFL, TSE, or IELTS English proficiency test scores. Minimum performance levels expected for each test are: TOEFL iBT total score of 89 with sectional scores that meet or exceed 23 for the writing section, 21 for the speaking section, 24 for the reading section and 21 for the listening section, paper-based TOEFL score of 560 with a TWE of 3.5, computer-based TOEFL score of 230, TSE-A score of 45, or IELTS score of 7.0.

### **Waiver of the Graduate Record Exam**

A waiver of the Graduate Record Examination may be considered for a UT Arlington graduate who has completed a BSME degree within the past 3 years. The student's GPA must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study and (b) in all undergraduate coursework completed at UT Arlington. The GRE waiver may be extended to include non-UT Arlington candidates that have undergraduate degrees in mechanical engineering (with GPA of 3.25 or above) from U.S. universities with an ABET accredited engineering program or other select U.S. universities subject to graduate advisor's approval. The waiver of the GRE applies only to applicants for the master's degree programs. Interested applicants should contact the Mechanical Engineering Graduate Advisor.

### **Criteria for Award of Fellowships and Assistantships**

Applicants who demonstrate skills, experience or interests that meet the needs of the ME Graduate Program will be considered for fellowships or assistantships.

### **Fast Track Program for Master's Degree in Mechanical Engineering**

The Fast Track Program enables outstanding UT Arlington senior undergraduate students in Mechanical Engineering to satisfy degree requirements leading to a master's degree in Mechanical Engineering while completing their undergraduate studies. When senior-level students are within 15 hours of completing their undergraduate degree requirements, they may take up to 9 hours of graduate level coursework designated by the Mechanical Engineering Program to satisfy both undergraduate and graduate degree requirements. In the limiting case, a student completing the maximum allowable hours (9) while in undergraduate status would have to take only 21 additional hours to meet minimum requirements for graduation in a 30 hour thesis master's degree program (M.S.) or 27 additional hours for a non-thesis master's degree program (M. Engr.)

Interested UT Arlington undergraduate Mechanical Engineering students should apply to the Mechanical Engineering Program when they are within 30 hours of completing their bachelor's degrees. They must have completed at least 30 hours at UT Arlington, achieving a GPA of at least

3.0 in those courses, and have an overall GPA of 3.0 or better in all college courses. Additionally, they must have completed at least 11 hours of specified undergraduate foundation courses with a minimum GPA of 3.3 in those courses. Fast Track Program details are provided in the UT Arlington Undergraduate Catalog. Contact the Undergraduate Advisor or Graduate Advisor in Mechanical Engineering for more information about the program.

## Continuation

The Mechanical Engineering Graduate Program, in fulfillment of its responsibility to graduate highly qualified professional engineers, has established certain policies and procedures. In addition to the requirements of the Graduate School listed elsewhere, to continue in the program each mechanical engineering graduate student must:

- Maintain at least a B (3.0) overall GPA in all coursework, and
- Demonstrate suitability for professional engineering practice.

At such time as questions are raised by mechanical engineering graduate faculty regarding either of the above, the student will be notified and will be provided the opportunity to respond to the Committee on Graduate Studies in Mechanical Engineering. The Committee on Graduate Studies will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a decision on continuation may be made through normal procedures outlined in the section of this catalog entitled "[Grievances Other than Grades.](#)"

## Degree Requirements

### Core Courses

**Thermal Science:** ME 5316 Thermal Conduction, ME 5317 Convection Heat Transfer, ME 5318 Radiative Heat Transfer, ME 5321 Advanced Classical Thermodynamics

**Fluid Science:** ME 5313 Fluid Dynamics, ME 5342 Advanced Gas Dynamics I, ME 5344 Viscous Flows

**Design, Mechanics and Manufacturing:** ME 5310 Finite Element Methods, ME 5337 Introduction to Robotics, ME 5339 Structural Aspects of Design, ME 5311 Structural Dynamics

**Controls and Systems:** ME 5303 Classical Methods of Control Systems Analysis and Synthesis, ME 5305 Dynamic Systems Modeling, ME 5341 Control Systems Components.

**Analysis Courses:** ME 5331, ME 5332, approved mathematics courses.

### Master of Science in Mechanical Engineering

The Master of Science degree is a research-oriented program in which completion of a thesis is mandatory. A minimum of 30 credit hours is required as follows: three core courses (one course each in three of the four areas) and the two analysis courses listed above; three graduate courses (nine credit hours) related to a specialty in mechanical engineering (registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and the students committee chair otherwise they will not count towards graduation requirements); and six credit hours of thesis. In addition, all GTA/GRA Master of Science students are required to enroll in ME 5101 Seminar course. The student must enroll in ME 5398 or ME 6397 every semester in which the student is actively involved in thesis preparation or research, except that the student must enroll in ME 5698 in the semester of graduation.

### Master of Engineering in Mechanical Engineering

The Master of Engineering degree is an engineering practice-oriented program. A minimum of 36 credit hours is required as follows: four core courses (one in each area) and the two analysis courses listed above; six courses (18 credit hours) of elective graduate courses in engineering,

mathematics, and/or science relating to the student's interest areas. The elective courses may include as many as three hours of special project courses (ME 5391). Registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and student's committee chair otherwise they will not count towards graduation requirements.

### Manufacturing Engineering Option

Students desiring a program in manufacturing engineering may achieve this goal while meeting the requirements for a graduate degree in mechanical engineering. This is accomplished by selecting a specific program of courses. Upon completion, the student receives a Manufacturing Engineer's Certificate along with the M.S.M.E. or M.Engr.M.E. Specifics are available in the Mechanical Engineering office.

### Doctor of Philosophy

There is no foreign language requirement for the Ph.D. degree.

#### B.S.-Ph.D. Track Students

To meet the educational goal of a broad-based technical background in Mechanical Engineering, it is expected that each student will take sufficient graduate coursework to obtain in-depth knowledge in at least two areas of Mechanical Engineering. Students whose background is in a field other than Mechanical Engineering must satisfy the BS core requirements. Note that registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and student's committee chair. Otherwise they will not count towards the graduation requirements. The doctoral degree program consists of a minimum of 42 credit hours of coursework beyond the bachelor's degree level plus 9 hours of dissertation and 2 hours of seminar and requires the successful completion of the following requirements:

1. Three core courses (9 credit hours) from at least two different areas, as listed below:
  - a. **Thermal Science:** ME 5316 Thermal Conduction, ME 5317 Convection Heat Transfer, ME 5318 Radiative Heat Transfer, ME 5321 Advanced Classical Thermodynamics
  - b. **Fluid Science:** ME 5313 Fluid Dynamics, ME 5342 Advanced Gas Dynamics I, ME 5344 Viscous Flows
  - c. **Design, Mechanics and Manufacturing:** ME 5310 Finite Element Methods, ME 5337 Introduction to Robotics, ME 5339 Structural Aspects of Design, ME 5311 Structural Dynamics
  - d. **Controls and Systems:** ME 5303 Classical Methods of Control Systems Analysis and Synthesis, ME 5305 Dynamic Systems Modeling, ME 5341 Control Systems Components
2. One additional course (3 credit hours) at the graduate level in one of the broad areas of Mechanical Engineering outside the student's major area of specialization. A core course is also acceptable for meeting this requirement.
3. Eight additional courses (24 credit hours) in the student's major area of research
4. Two courses (6 credit hours) of engineering analysis (ME 5331, 5332, or other approved mathematics courses).
5. Two credit hours of seminar
6. Nine credit hours for Dissertation
  - a. Doctoral students must register for a minimum total of 9 hours of dissertation research over the course of their programs of work. These hours may be accumulated over several terms or completed in a single term. The course hours of ME 6299, 6399, 6699, 6699, and/or 7399 are all counted towards this nine-hour requirement.
  - b. Doctoral students must be enrolled in 9 hours while completing organized coursework and 6 hours while exclusively enrolled in dissertation research in order to be considered full time except in the term they designate as their "completion term." The completion term is typically the term in which a student

successfully defends his or her dissertation, fully completes all degree requirements and graduates. Students may designate only one term as the completion term.

- c. Doctoral students must enroll in a minimum of 3 dissertation hours (7399) in the term designated as their completion term. Alternatively, students may complete and defend their dissertation while enrolled in 6 or 9-hour dissertation courses (6299, 6399, 6699 or 6999).
- d. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W, or F and must enroll in a minimum of 6 hours of dissertation research (6299, 6399, 6699 or 6999) every term until graduation.
- e. Students enrolled in the completion term meet enrollment requirements for holding fellowships awarded by the Office of Graduate Studies and GTA or GRA positions by enrolling in the required 3-hour completion term dissertation course.
- f. Students who wish to remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours each term as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Students should consult with the Office of Financial Aid and other funding agencies to be certain they enroll in sufficient hours to retain support.

Final course requirements are determined by the student's supervising committee.

#### **M.S.-Ph.D. Track Students**

To meet the educational goal of a broad-based technical background in Mechanical Engineering, it is expected that each student will take sufficient graduate coursework to obtain in-depth knowledge in at least two areas of Mechanical Engineering. Students whose background is in a field other than Mechanical Engineering must satisfy the Masters of Science core requirements. Note that registration in elective courses outside the ME department requires prior approval of the ME graduate advisor and student's committee chair. Otherwise they will not count towards the graduation requirements. The doctoral degree program consists of a minimum of 24 credit hours of coursework beyond the Master's degree level plus 9 hours of dissertation and 2 hours of seminar and requires the successful completion of the following requirements:

1. Three core courses (9 credit hours) from at least two different areas, as listed below:
  - a. **Thermal Science:** ME 5316 Thermal Conduction, ME 5317 Convection Heat Transfer, ME 5318 Radiative Heat Transfer, ME 5321 Advanced Classical Thermodynamics
  - b. **Fluid Science:** ME 5313 Fluid Dynamics, ME 5342 Advanced Gas Dynamics I, ME 5344 Viscous Flows
  - c. **Design, Mechanics and Manufacturing:** ME 5310 Finite Element Methods, ME 5337 Introduction to Robotics, ME 5339 Structural Aspects of Design, ME 5311 Structural Dynamics
  - d. **Controls and Systems:** ME 5303 Classical Methods of Control Systems Analysis and Synthesis, ME 5305 Dynamic Systems Modeling, ME 5341 Control Systems Components.
2. One additional course (3 credit hours) at the graduate level in one of the broad areas of Mechanical Engineering outside the student's major area of specialization. A core course is also acceptable for meeting this requirement.
3. Three additional courses (9 credit hours) in the student's major area of research
4. One course (3 credit hours) of engineering analysis (ME 5331, 5332, or other approved mathematics courses).
5. Two credit hours of seminar
6. Nine credit hours (ME 6999) for Dissertation.
  - a. Doctoral students must register for a minimum total of 9 hours of dissertation

research over the course of their programs of work. These hours may be accumulated over several terms or completed in a single term. The course hours of ME 6299, 6399, 6699, 6699, and/or 7399 are all counted towards this nine-hour requirement.

- b. Doctoral students must be enrolled in 9 hours while completing organized coursework and 6 hours while exclusively enrolled in dissertation research in order to be considered full time except in the term they designate as their "completion term." The completion term is typically the term in which a student successfully defends his or her dissertation, fully completes all degree requirements and graduates. Students may designate only one term as the completion term.
- c. Doctoral students must enroll in a minimum of 3 dissertation hours (7399) in the term designated as their completion term. Alternatively, students may complete and defend their dissertation while enrolled in 6 or 9-hour dissertation courses (6299, 6399, 6699 or 6999).
- d. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W, or F and must enroll in a minimum of 6 hours of dissertation research (6299, 6399, 6699 or 6999) every term until graduation.
- e. Students enrolled in the completion term meet enrollment requirements for holding fellowships awarded by the Office of Graduate Studies and GTA or GRA positions by enrolling in the required 3-hour completion term dissertation course.
- f. Students who wish to remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours each term as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Students should consult with the Office of Financial Aid and other funding agencies to be certain they enroll in sufficient hours to retain support

Final course requirements are determined by the student's supervising committee. In addition, a student must pass three examinations before being awarded the Ph.D. degree: the Diagnostic Exam, the Comprehensive Exam, and the Final Exam (or Dissertation Examination).

A Diagnostic Examination will be administered to the student within the first two semesters after a Master's degree or before the accumulation of 42 semester hours of graduate work beyond the baccalaureate degree. The Diagnostic Exam is a written test of the student's capability to pursue successfully the doctorate degree, and it aids in developing the program of study for the student. The Diagnostic Examination tests fundamental knowledge in two technical areas of mechanical engineering. The student and the student's research advisor jointly choose the technical areas from the following five: (1) thermal science, (2) fluid science, (3) mechanical design and manufacturing, (4) solid mechanics and structures, and (5) controls and systems. The exam topics for the technical areas are given in the ME Ph.D. Diagnostic Exam handout. The diagnostic examination is normally offered twice a year the week prior to the beginning of the Fall and/or Spring semesters. A student should inform the ME graduate advisor in advance and no later than the middle of the long semester prior to the planned time of taking the exam and consult with the ME graduate advisor for the time and place of the diagnostic examination.

A comprehensive examination will be administered to the student after the successful completion of all phases of the diagnostic examination and before the student's research work for the dissertation. The comprehensive examination is used to determine if the student has the necessary background and specialization required for the dissertation research and if the student can organize and conduct the research. An applicant must pass this examination to be admitted to candidacy for the Ph.D. degree.

The student must enroll in at least three hours of dissertation courses (ME 6399-6999) or research courses (ME 6397-6999) every semester in which the student is actively involved in dissertation preparation or research, except that the student must enroll in ME 6999 in the semester of graduation.



The student must submit the Application for Candidacy and Final Program of Work to the Mechanical Engineering Committee on Graduate Studies immediately after completion of the Comprehensive Examination. Coursework taken for the Master's degree at this institution may be used to meet these requirements; however, courses listed for the Master's degree or any other degree cannot be listed as the actual course requirement on the Final Program of Work. Transfer work is not accepted in doctoral programs; however, such courses may provide a basis for waiving some course requirements.

The student must file the Request for Dissertation Defense form with the Graduate School at least two weeks prior to the defense. At the same time of requesting the exam, the student must also announce the exam to the members of the university community by posting fliers on the departmental bulletin boards and by providing an electronic statement to the ME graduate advisor to be posted on the departmental web page indicating details (title, abstract, advisor, time and place) of the exam. Approval of the dissertation by the members of the Dissertation Committee is required.

Please see the section entitled General Graduate School Regulations and Information in this Catalog for further details.

The grade of R (research in progress) is a permanent grade; completing course requirements in a later semester cannot change it. To receive credit for an R-graded course, the student must continue to enroll in the course until a passing grade is received.

An incomplete grade (the grade of I) cannot be given in a course that is graded R, nor can the grade of R be given in a course that is graded I. To receive credit for a course in which the student earned an I, the student must complete the course requirements. Enrolling again in the course in which an I was earned cannot change a grade of I. At the discretion of the instructor, a final grade can be assigned through a change of grade form.

Three-hour thesis courses and three- and six-hour dissertation courses are graded R/F/W only. The grade of P (required for degree completion for students enrolled in thesis or dissertation programs) can be earned only in six-hour thesis or nine-hour dissertation courses. In the course listings below, R-graded courses are designated either "Graded P/F/R" or "Graded R." Occasionally, the valid grades for a course change. Students should consult the appropriate Graduate Advisor or instructor for valid grade information for particular courses. (See also the sections titled "R" Grade, Credit for Research, Internship, Thesis or Dissertation Courses and Incomplete Grade in this catalog.)

### **B.S. to Ph.D. Track**

In addition to the requirements listed below for the Ph.D. degree, a B.S.-Ph.D. Track student will be required to enroll in at least three hours of research each semester during the student's first two years, receiving a pass/fail grade (no R grade) in these hours. A B.S.-Ph.D. student must have a faculty research (dissertation) advisor prior to the start of the student's second full semester. A B.S.-Ph.D. student must take the Ph.D. diagnostic examination prior to the start of the student's fourth full semester.

## **Certificate in Electronic Packaging**

### **Program objective and requirements:**

The Certificate in Electronic Packaging program provides graduate-level knowledge in the field of electronic packaging, with a concentration on numerical and experimental characterization of thermo/mechanical issues. Courses are taught by faculty of the departments of Mechanical and Aerospace Engineering and Materials Science and Engineering, plus other UT Arlington faculty and adjunct faculty as needed. Technical material covered in the classroom will be complemented by a number of seminars by industry leaders in the packaging field. Completion of the certificate program will provide a head start for UT Arlington students when joining industry and skills-enhancement opportunities for current industry employees.

There are two enrollment options: as a student pursuing a graduate degree or as a non-degree-

seeking special student. The special student avenue is tailored for individuals currently employed in an electronics-related industry. Students will receive the certificate after completing 12 credit hours of packaging courses, as advised by the certificate program director, and must have a cumulative GPA of 3.0 in the four selected courses. The time limit for completion of the Certificate in Electronic Packaging program is six years.

Applicants on a degree track must be admitted to the Master's degree program. Non-degree students must have a BS degree and a minimum GPA of 2.5. Special students who decide that they want to pursue a graduate degree after starting as a special student may transfer up to 12 credit hours of graduate level courses.

**Courses:**

- ME 5314 Fracture Mechanics in Structural Design
- ME 5346 Cooling of Electronic Packages
- ME 5352 Fundamentals in Electronic Packaging (mandatory)
- ME 5353 Computational Techniques in Electronic Packaging (mandatory)
- ME 5354 Failures and Their Prevention in Electronic Packages
- ME 5355 Mechanical Failure of Electronic Packages
- ME 5356 Chipscale Package
- ME 5361 Multidisciplinary Computations
- ME 5390 Smart Structures and Materials (Special Topics)
- MSE 5336 Electrical Properties of Materials
- EE 5343 Silicon Integrated Circuit Fabrication Technology
- EE 5344 Introduction to MEMS

## Graduate Certificate in Automotive Engineering

**Program objective:**

The University of Texas at Arlington is pleased to offer a Graduate Certificate in Automotive Engineering through the Arnold E. Petsche Center for Automotive Engineering. This certificate confirms the student's commitment to automotive engineering and the learning experience gained from being a contributing team member of a student design competition. Students shall be awarded the Graduate Certificate for Automotive Engineering by the College of Engineering and the Graduate School upon satisfactory completion of the certificate requirements with an overall grade point average of 3.0.

**Admission requirements:**

Students wishing to enroll only in the Graduate Certificate in Automotive Engineering but NOT a graduate degree program may apply for admission to UT Arlington as a non-degree seeking student. The GRE is not necessary. Admission to the certificate program allows participants to take the specific courses approved for the certificate program. Student are not allowed to take courses in excess of those required for the certificate. A Bachelor's degree in engineering with a GPA of 2.8 is required for admission through the Graduate School. Students with GPA's lower than 2.8 may be recommended for admission as special student by the Director of the Arnold E. Petsche Center for Automotive Engineering, based on the following admission enhancing factors: (1) the applicant's work experience and level of responsibility; (2) two letters of recommendation.

Students already enrolled in a Master's degree program at TU Arlington may enroll by submitting the appropriate application form to the certificate program director and his or her academic graduate advisor. Students who have completed a Master's degree may apply for admission to UT Arlington as a non-degree seeking student. In either case, a minimum GPA of 3.0 in Master's degree work is required.

**Academic requirements:**

Participants must satisfactorily complete 12 hours of required courses according to the following

criteria

Six hours of ME 5359 Applied Automotive Engineering (may be repeated for credit)

At least three hours from the following list:

- ME 5340 Automotive Engineering
- ME 5358 Racecar Engineering

No More that three hours from the following list, or other graduate level engineering course approved by the Director of the Arnold E. Petsche Center for Automotive Engineering

- ME 5341 Control System Components
- EE 5313 Microprocessor Systems

Students can take ME 5010 (Automotive Engineering Practicum, no credit hours) to be recognized as full team members on a competition team such as Formula SAE.

## AE Courses

### AE5101 – GRADUATE SEMINAR

1 Lecture Hour · 0 Lab Hours

May be repeated as often as required. The purpose is to acquaint peers and faculty with research in progress at UTA. The students present progress reports on their research. Prerequisite of graduate standing in MS. May be graded P/F.

### AE5191 – ADVANCED STUDIES IN AEROSPACE ENGINEERING

1 Lecture Hour · 0 Lab Hours

Individual research or design project performed for fulfilling the requirements of the Master of Engineering degree option. Prior approval of the AE Graduate Advisor is required for enrollment. A written and/or oral report is required. Will be graded P/F.

### AE5291 – ADVANCED STUDIES IN AEROSPACE ENGINEERING

2 Lecture Hours · 0 Lab Hours

Individual research or design project performed for fulfilling the requirements of the Master of Engineering degree option. Prior approval of the AE Graduate Advisor is required for enrollment. A written and/or oral report is required. Will be graded P/F.

### AE5300 – PREPARATORY COURSE FOR AEROSPACE ENGINEERING

3 Lecture Hours · 0 Lab Hours

May be repeated as often as required. The course may be offered with multiple sections, wherein each section is paired with a corresponding UG course being offered that semester. The purpose of this course is to strengthen academic preparation of students who were found inadequately prepared for a graduate degree in Aerospace Engineering. Students can concurrently enroll in multiple sections and may need to enroll in this course multiple times until their academic preparation is deemed complete. In order to pass this class, the student has to earn at least a B grade in aggregate based on all the assignments and exams. Will be graded P/F.

### AE5301 – ADVANCED TOPICS IN AEROSPACE ENGINEERING

3 Lecture Hours · 0 Lab Hours

To provide formal instruction in special topics pertinent to Aerospace Engineering from semester to semester depending on the availability of faculty. May be repeated for credit as provided topics change.

### AE5302 – ADVANCED FLIGHT MECHANICS

3 Lecture Hours · 0 Lab Hours



Rigid body motion. Kinematics and dynamics of aerospace vehicles. Linear and nonlinear control of aircraft and spacecraft. Advanced aircraft and spacecraft modeling and control issues. Prerequisite: MAE 3405 and MAE 4310.

### **AE5303 – CLASSICAL METHODS OF CONTROL SYSTEMS ANALYSIS AND SYNTHESIS**

**3** Lecture Hours · **0** Lab Hours

Equip the student with familiarity of significant tools of the control engineer. Topics covered include controllers and their effect on system performance and stability, block diagram algebra, stability and analysis, system performance definition, root locus, frequency techniques, and state variable methods. Digital simulation tools for design and simulation of control systems. Demonstration of controller design and performance in the laboratory. Also offered as ME 5303. Credit will be granted only once.

### **AE5305 – DYNAMIC SYSTEMS MODELING**

**3** Lecture Hours · **0** Lab Hours

To equip the student with the capability of determining the necessary equations for distributed and lumped parameter modeling of mixed physical system types including mechanical, fluid, electrical, and thermal components. Models are formulated for computer simulation and analysis for systems with deterministic and stochastic inputs. Topics of random vibration and system identification are included. Also offered as ME 5305. Credit will be offered only once.

### **AE5309 – COMPUTER AIDED DESIGN**

**3** Lecture Hours · **0** Lab Hours

Role of graphics; image representation, batch and interactive computing, methods of automated mathematical model generation, mainframe and microcomputing in engineering design. Application in mechanical, structural, thermal, controls areas of mechanical engineering. Also offered as ME 5309. Credit will be granted only once.

### **AE5310 – FINITE ELEMENT METHODS**

**3** Lecture Hours · **0** Lab Hours

Finite element method in the study of the static response of complex structures and of continua applications to field problems; analytical methods emphasized and digital computer application undertaken. Also offered as ME 5310. Credit will be granted only once.

### **AE5311 – STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Natural frequencies; forced and random response of complex structural systems studied through the use of the finite element method; computational aspects of these problems discussed, and digital computer applications undertaken. Also offered as ME 5311. Credit will be granted only once.

### **AE5312 – CONTINUUM MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Study of the underlying physical and mathematical principles relating to the behavior of continuous media; interrelationships between fluid and solid mechanics. Also offered as ME 5312. Credit will be granted only once.

### **AE5313 – FLUID DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Basic conservation laws, flow kinematics, special forms of the governing equations, two-dimensional potential flows, surface waves and some exact solutions of viscous incompressible flows. Offered as AE 5313. Credit will be granted only once.

### **AE5314 – FRACTURE MECHANICS IN STRUCTURAL DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Linear elastic fracture mechanics, general yielding fracture mechanics, damage tolerance and durability design, fail safe and safe life design criteria, analysis of fatigue crack growth, residual strength analysis. Also offered as ME 5314. Credit will be granted only once.

### **AE5315 – FUNDAMENTALS OF COMPOSITES**

**3 Lecture Hours · 0 Lab Hours**

Fundamental relationships between the mechanical and hygrothermal behavior and the composition of multiphase media; failure criteria. Offered as AE 5315, ME 5348, and MSE 5348. Credit will be granted only once.

### **AE5322 – AEROELASTICITY**

**3 Lecture Hours · 0 Lab Hours**

Math models for the steady aerodynamics and structural stiffness of aircraft wings are presented and combined into a static aeroelastic math model. Loss of wing lift due to static aeroelasticity as well as the structural instability called aeroelastic divergence are covered.

### **AE5325 – COMBUSTION**

**3 Lecture Hours · 0 Lab Hours**

Fundamental treatment of problems involving simultaneous occurrence of chemical reaction and transfer of heat, mass and momentum. Topics include kinetically controlled combustion phenomena; diffusion flames in liquid fuel combustion; combustion of solids; combustion of gaseous fuel jets; flames in premixed gasses. Offered as AE 5325 and ME 5325. Credit will be granted only once.

### **AE5326 – AIR-BREATHING PROPULSION**

**3 Lecture Hours · 0 Lab Hours**

Development of thrust and efficiency equations, thermodynamic cycle analysis, cycle design methods of aerospace propulsion systems, component performance analysis methods, component matching and dynamic interactions, and vehicle/propulsion-system integration.

### **AE5327 – COMPUTATIONAL AERODYNAMICS I**

**3 Lecture Hours · 0 Lab Hours**

Solution of engineering problems by finite- difference methods, emphasis on aerodynamic problems characterized by single linear and non-linear equations, introduction to and application of major algorithms used in solving aerodynamics problems by computational methods.

### **AE5328 – COMPUTATIONAL AERODYNAMICS II**

**3 Lecture Hours · 0 Lab Hours**

Review of the fundamental equations of aerodynamics, development of methods for solving Euler, boundary-layer, Navier-Stokes, and parabolized Navier-Stokes equations, application to practical aerodynamic analysis and design problems.

### **AE5331 – ANALYTIC METHODS ENGINEERING**

**3 Lecture Hours · 0 Lab Hours**

Introduction to advanced analytic methods in engineering. Methods include multivariable calculus and field theory, Fourier series, Fourier and Laplace Transforms. Prerequisite: Undergraduate degree in engineering, physics, or mathematics. Offered as AE 5331 and ME 5331. Credit will be granted only once.

### **AE5332 – ENGINEERING ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Introduction to partial differential equations and complex variable theory with application to modeling of physical systems. Also offered as ME 5332. Credit will be granted only once.

### **AE5335 – OPTIMAL CONTROL OF DYNAMIC SYS**

**3** Lecture Hours · **0** Lab Hours

Linear and nonlinear optimization methods; optimal control; continuous time Ricatti equation; bang-bang control; singular arcs; differential inclusions; collocation techniques; design of optimal dynamic system trajectories. Also offered as ME 5335. Credit will be granted only once.

### **AE5336 – OPTIMAL ESTIMATION OF DYNAMIC SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Kalman filter design and implementation. Optimal filtering for discrete-time and continuous-time dynamical systems with noise. Wiener filtering. State-space determination. Prerequisite: Prior introductory systems or identification course is desirable. Also offered as ME 5336 and EE 6327. Credit will be granted only once.

### **AE5337 – INTRODUCTION TO ROBOTICS**

**3** Lecture Hours · **0** Lab Hours

An overview of industrial robots and their application to traditional and emerging applications. Coordinate systems and homogeneous transformations, kinematics of manipulators; motion characteristics and trajectories; dynamics and control of manipulators; actuation and design issues. Programming of industrial robotic manipulators in the laboratory. Also offered as ME 5337. Credit will be granted only once.

### **AE5338 – ANALYTICAL & COMPUTATIONAL DYN**

**3** Lecture Hours · **0** Lab Hours

The course focuses on developing the equations of motion for dynamic systems composed of multiple, connected and unconnected, rigid bodies using Kane's method and the Lagrangian approach. The resulting model is used to simulate and visualize the predicted motion. Topics include kinematics, Euler parameters, kinematic constraints, virtual work, the calculus of variations, energy, momentum, contact, impact, and checking functions. Also offered as ME 5338. Credit will be granted only once.

### **AE5339 – STRUCTURAL ASPECTS OF DESIGN**

**3** Lecture Hours · **0** Lab Hours

Emphasis on determination of stresses and prediction of failure in machine and structural components; stress-strain relations in elastic and plastic regions; static failure and failure criteria; contact stress; notched sensitivity; strain-fatigue life relationship; characteristics of cracks in structural components. Also offered as ME 5339. Credit will be granted only once.

### **AE5341 – CONTROL SYSTEM COMPONENTS**

**2** Lecture Hours · **3** Lab Hours

The components and hardware used in electronic, hydraulic, and pneumatic control systems; techniques of amplification, computation, compensation, actuation, and sensing; modeling of multiport systems as well as servo systems analysis. Pulse modulated systems. Prerequisite: Undergraduate introductory control course in Mechanical Engineering or equivalent or ME 5303 or equivalent. Also offered as ME 5341. Credit will be granted only once.

### **AE5342 – GAS DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Review of fundamental compressible flow theory, method of characteristics for perfect gases, the Rankine-Hugoniot conditions, linearized flow theory. Also offered as AE 5342. Credit will be granted only once.

### **AE5343 – TWO-PHASE FLOW AND BOILING HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

This is to introduce significant progress in phase change heat transfer and two-phase flow. Boiling heat transfer will be followed by the study of pressure drop and heat transfer in the pipes of two-phase flow. Boiling heat transfer includes pool boiling, forced convection boiling, and critical heat flux. Also selected topics by the instructor (heat pipe, condensation, Helmholtz wave instability, etc.). Also offered as ME

5343. Credit will be granted only once.

### **AE5344 – VISCOUS FLOWS**

3 Lecture Hours · 0 Lab Hours

Navier-Stokes equations and Prandtl's boundary layer approximations; laminar and turbulent boundary layers including internal and external flows. Also offered as ME 5344. Credit will be granted only once.

### **AE5345 – NUMERICAL HEAT TRANSFER**

3 Lecture Hours · 0 Lab Hours

Discussion of numerical methods for conduction and convection heat transfer problems includes introduction to various computational techniques suitable for digital computers. Finite difference method is emphasized. Also offered as ME 5345. Credit will be granted only once.

### **AE5347 – ROCKET PROPULSION**

3 Lecture Hours · 0 Lab Hours

Thrust and efficiency relations, trajectory analysis, introduction to design and performance analysis of chemical (liquid and solid), electrical and nuclear rocket systems, combined cycle propulsion systems, and pulse detonation rockets.

### **AE5348 – HYPERSONIC PROPULSION**

3 Lecture Hours · 0 Lab Hours

Design and performance analysis of propulsion systems for sustained flight at hypersonic speeds, airframe/propulsion system integration, supersonic combustion, finite-rate chemistry effects, radiative cooling.

### **AE5351 – HEAT EXCHANGER DESIGN**

3 Lecture Hours · 0 Lab Hours

Design procedures, system evaluations and design parameters in heat exchangers. Heat exchanger configurations; student design projects. Also offered as ME 5351. Credit will be granted only once.

### **AE5360 – MULTIDISCIPLINARY INVERSE DESIGN AND OPTIMIZATION**

3 Lecture Hours · 0 Lab Hours

For a new design of any realistic device to be competitive, it must satisfy a number of often conflicting requirements, objectives, and constraints. This course offers a variety of basic concepts and methodologies for inverse design and optimization with practical applications in fluid mechanics, heat transfer, elasticity, and electromagnetism. Offered as AE 5360 and ME 5360. Credit will be granted only once.

### **AE5362 – GUIDANCE, NAVIGATION, AND CONTROL OF AEROSPACE SYSTEMS**

3 Lecture Hours · 0 Lab Hours

Equilibrium glide trajectories for atmospheric flight. Design of guidance and navigation system for various aerospace vehicles. Discussion of the various guidance systems used in a homing missile seeker system, etc. Equilibrium glide trajectories for atmospheric flight, energy guidance methods. Selection and trade-off between various navigation components such as the IMU, GPS and other navigation components. Basics of Kalman filtering.

### **AE5363 – INTRODUCTION TO ROTORCRAFT ANALYSIS**

3 Lecture Hours · 0 Lab Hours

History of rotorcraft. Behavior of the rotor blade in hover and forward flight. Rotor configurations, dynamic coupling with the fuselage, elastic and aeroelastic effects. Offered as AE 5363 and ME 5363. Credit will be granted only once.

### **AE5364 – INTRODUCTION TO AERODYNAMICS OF ROTORCRAFT**

**3** Lecture Hours · **0** Lab Hours

Practical aerodynamics of rotors and other components of rotorcraft. Introduction to performance, handling qualities, and general flight mechanics related to rotorcraft design, test, and certification requirements. Emphasis is on real rotorcraft mission capabilities as defined by the customer. Also offered as ME 5364. Credit will be granted only once.

### **AE5365 – INTRODUCTION TO HELICOPTER AND TILTROTOR SIMULATION**

**3** Lecture Hours · **0** Lab Hours

Dynamic and aerodynamic modeling of rotorcraft elements using vector mechanics, linear algebra, calculus and numerical methods. Special emphasis on rotors, aerodynamic interference, proper axis system representation, model assembly methods and trimming. Offered as AE 5365 and ME 5365. Credit will be granted only once.

### **AE5367 – HIGH-SPEED AIRCRAFT AND SPACE ACCESS VEHICLE DESIGN**

**3** Lecture Hours · **0** Lab Hours

An introductory course on high-speed aircraft and space access vehicle design. The course concentrates on reusable flight vehicles. Topics covered are historical case studies, design disciplines, design space visualization and proof of design convergence. Prerequisites: consent of the instructor.

### **AE5368 – FLIGHT VEHICLE SYNTHESIS AND SYSTEMS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

An introductory course on multi-disciplinary design decision-making applied to flight vehicle design. The course introduces decision-making techniques leading to efficient aerospace product design. The following main topics are covered: a) management domain, b) operational domain, c) engineering domain. Prerequisites: MAE 4350, MAE 4351 or equivalent.

### **AE5369 – FLIGHT VEHICLE TESTING AND FLIGHT SIMULATION**

**3** Lecture Hours · **0** Lab Hours

An introductory course on flight test techniques and flight simulation. The course introduces flight vehicle certification from the perspective of the designer and test pilot. Classical flight test procedures and flight simulation techniques are introduced. Prerequisites: MAE 4350, MAE 4351 or equivalent.

### **AE5372 – PARAMETRIC SIZING OF HIGH-SPEED AIRCRAFT**

**3** Lecture Hours · **0** Lab Hours

An introductory course on high-speed aircraft design. Aimed to develop insight into basic concepts underlining the analysis and design of supersonic and hypersonic aircraft. Topics covered are historical case studies, design disciplines, and design methodologies. Prerequisite: MAE 4350, MAE 4351 or equivalent.

### **AE5374 – NONLINEAR SYSTEMS ANALYSIS AND CONTROLS**

**3** Lecture Hours · **0** Lab Hours

Nonlinear systems; phase plane analysis; Poincare-Bendixon theorems; nonlinear system stability; limit cycles and oscillations; center manifold theorem, Lyapunov methods in control; variable structure control; feedback linearization; backstepping techniques. Also offered as ME 5374. Credit will be granted only once.

### **AE5380 – DESIGN OF DIGITAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Difference equations, Z- and w-transforms, discrete TF (Transfer Function). Discrete equivalence (DE) to continuous TF. Aliasing & Nyquist sampling theorem. Design by DE, root locus in z-plane & Youla parameterization. Discrete state-space model, minimality after sampling, pole placement, Moore-Kimura method, linear quadratic regulator, asymptotic observer. Computer simulation and/or lab implementation. Also offered as ME 5380, EE 5324. Credit will be granted only once. Prerequisite: MAE 4310 or equivalent.

### **AE5381 – BOUNDARY LAYERS**

**3** Lecture Hours · **0** Lab Hours

An introductory course on boundary layers. The coverage emphasizes the physical understanding and the mathematical foundations of boundary layers, including applications. Topics covered include laminar and turbulent incompressible and compressible layers, and an introduction to boundary layer transition. Also offered as ME 5381. Credit will be granted only once.

### **AE5382 – ADVANCED ASTRONAUTICS**

**3** Lecture Hours · **0** Lab Hours

Topics include orbital mechanics, orbital maneuvering, relative motion, orbit determination and estimation, three body problem, perturbations and numerical techniques.

### **AE5383 – HYPERSONIC FLOW**

**3** Lecture Hours · **0** Lab Hours

General features of hypersonic flow fields. Inviscid hypersonic flow: thin shock layer theory, Newtonian flow, constant density solutions, small disturbance theory, method of characteristics.

### **AE5385 – HIGH TEMPERATURE GASDYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Surveys kinetic theory, statistical mechanics, and chemical reaction rate theory. Application to the prediction of thermodynamic properties of gasses and the analysis of problems in high-temperature gasdynamics.

### **AE5391 – ADVANCED STUDIES IN AEROSPACE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Individual research or design project performed for fulfilling the requirements of the Master of Engineering degree option. Prior approval of the AE Graduate Advisor is required for enrollment. A written and/or oral report is required. Will be graded P/F.

### **AE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Co-requisite: AE 5101.

### **AE5400 – PREPARATORY COURSE FOR AEROSPACE ENGINEERING**

**4** Lecture Hours · **0** Lab Hours

May be repeated as often as required. The course may be offered with multiple sections, wherein each section is paired with a corresponding UG course being offered that semester. The purpose of this course is to strengthen academic preparation of students who were found inadequately prepared for a graduate degree in Aerospace Engineering. Students can concurrently enroll in multiple sections and may need to enroll in this course multiple times until their academic preparation is deemed complete. In order to pass this class, the students has to earn at least a B grade in aggregate based all the assignments and exams. Will be graded P/F.

### **AE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/R/F. Co-requisite: AE 5101.

### **AE6196 – AEROSPACE ENGINEERING INTERNSHIP**

**1** Lecture Hour · **0** Lab Hours

For students participating in internship programs. May be repeated for credit. Requires prior approval of Graduate Advisor.

### **AE6197 – RESEARCH IN AEROSPACE ENGINEERING**

1 Lecture Hour · 0 Lab Hours

May be repeated for credit. Co-requisite: AE 5101.

### **AE6297 – RESEARCH IN AEROSPACE ENGINEERING**

2 Lecture Hours · 0 Lab Hours

May be repeated for credit. Co-requisite: AE 5101.

### **AE6299 – DISSERTATION**

2 Lecture Hours · 0 Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree

### **AE6310 – ADVANCED FINITE ELEMENT METHODS**

3 Lecture Hours · 0 Lab Hours

Modeling of large systems, composite and incompressible materials, substructuring, mesh generation, solids applications, nonlinear problems. Also offered as AE 6310. Prerequisite: ME 5310, AE 5310 or equivalent. Credit will be granted only once.

### **AE6311 – ADVANCED STRUCTURAL DYNAMICS**

3 Lecture Hours · 0 Lab Hours

Normal mode method for undamped and proportionally damped systems, component mode synthesis, generally damped systems, complex modes, effect of design modification on system response. Also offered as ME 6311. Prerequisite: ME 5311, AE 5311 or equivalent. Credit will be granted only once.

### **AE6315 – ADVANCED COMPOSITES**

3 Lecture Hours · 0 Lab Hours

Review of current state-of-the-art applications of composites: composite structural analysis; structural properties, damage characterization and failure mechanism; stiffness loss due to damage, notched sensitivity; delamination; impact; fatigue characteristics; composite material testing; material allowables; characteristics of composite joints. Also offered as ME 6315 and MSE 5349. Prerequisite: ME 5315, AE 5315 or MSE 5348 or equivalent. Credit will be granted only once.

### **AE6337 – ADVANCED ROBOTICS**

3 Lecture Hours · 0 Lab Hours

Advanced robotic design concepts considering structural statics, dynamics and control strategies for both rigid and flexible manipulators will be studied using optimization techniques and analytical approaches and introduction to micro- and mobile robotic devices. Study of emerging applications of robotics will be explored. Digital simulation of robotic devices and programming and demonstration of robotic devices in the laboratory. Prerequisites AE 5337, ME 5337 or equivalent. Credit will be granted only once.

### **AE6344 – HEAT TRANSFER IN TURBULENT FLOW**

3 Lecture Hours · 0 Lab Hours

Introduction to heat transfer in turbulent boundary layers including internal and external flows, turbulence structure, the Reynolds analogy, van Driest hypothesis, high and low Prandtl number two equation model, effects of surface roughness on heat transfer. Also offered as ME 6344. Credit will be granted only once.

### **AE6345 – TURBULENCE**

3 Lecture Hours · 0 Lab Hours

Physical, numerical and theoretical aspects of turbulence. Review of the conservation equations for incompressible flow. Statistical descriptions pertaining to fluid mechanics. Classical description of



turbulence via Reynolds averaging is developed with emphasis on homogeneous, isotropic turbulence. Application to free and wall-bounded flows. Modeling and simulation, including direct numerical simulation, classical turbulence modeling, PDF methods and large eddy simulation. Prerequisites: An advanced course in fluid mechanics (AE/ME 5313) or continuum mechanics (AE/ME 5312). Familiarity with vector or tensor notation is expected.

### **AE6397 – RESEARCH IN AEROSPACE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit. Co-requisite: AE 5101.

### **AE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree. Corequisite: AE 5101.

### **AE6697 – RESEARCH IN AEROSPACE ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

May be repeated for credit. Graded F/R/W. Corequisite: AE 5101.

### **AE6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: admission to candidacy for the Doctor of Philosophy degree. Corequisite: AE 5101.

### **AE6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded F, R, P. Prerequisite: admission to candidacy for the Doctor of Philosophy degree. Corequisite: AE 5101.

### **AE7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **ME Courses**

### **ME5010 – AUTOMOTIVE ENGINEERING PRACTICUM**

**0** Lecture Hours · **0** Lab Hours

Practical design experience as full member of automotive design competition team. Prerequisite: Permission of Director for the Arnold E. Petsche Center for Automotive Engineering

### **ME5101 – GRADUATE SEMINAR**



**1 Lecture Hour · 0 Lab Hours**

May be repeated as often as required. The purpose is to acquaint peers and faculty with research in progress at UTA. The students present progress reports on their research. Prerequisite of graduate standing in MS. May be graded P/F.

### **ME5191 – PROJECT STUDIES IN MECHANICAL ENGINEERING**

**1 Lecture Hour · 0 Lab Hours**

May be repeated for credit as topics change. Project work performed under a non-thesis degree will normally be accomplished under this course number, with prior approval of the Committee on Graduate Studies. May be graded pass/fail.

### **ME5291 – PROJECT STUDIES IN MECHANICAL ENGINEERING**

**2 Lecture Hours · 0 Lab Hours**

May be repeated for credit as topics change. Work performed as a thesis substitute will normally be accomplished under this course number, with prior approval of the Committee on Graduate Studies. May be graded P/F.

### **ME5303 – CLASSICAL METHODS OF CONTROL SYSTEMS ANALYSIS AND SYNTHESIS**

**3 Lecture Hours · 0 Lab Hours**

Equip the student with familiarity of significant tools of the control engineer. Topics covered include controllers and their effect on system performance and stability, block diagram algebra, stability and analysis, system performance definition, root locus, frequency techniques, and state variable methods. Digital simulation tools for design and simulation of control systems. Demonstration of controller design and performance in the laboratory. Also offered as AE 5303. Credit will be granted only once.

### **ME5305 – DYNAMIC SYSTEMS MODELING**

**3 Lecture Hours · 0 Lab Hours**

To equip the student with the capability of determining the necessary equations for distributed and lumped parameter modeling of mixed physical system types including mechanical, fluid, electrical, and thermal components. Models are formulated for computer simulation and analysis for systems with deterministic and stochastic inputs. Topics of random vibration and system identification are included. Also offered as AE 5305. Credit will be granted only once.

### **ME5306 – FLUID POWER CONTROL**

**3 Lecture Hours · 0 Lab Hours**

Mathematical models for hydraulic and pneumatic control components and systems including hydraulic pumps, motors, and spool valves. The application of electrohydraulic and hydromechanical servomechanisms for position and velocity control are treated. Theory supported by laboratory demonstrations and experiments.

### **ME5307 – OPTIMAL CONTROL OF DYNAMIC SYS**

**3 Lecture Hours · 0 Lab Hours**

Linear and nonlinear optimization methods; optimal control; continuous time Riccati equation; bang-bang control; singular arcs; differential inclusions; collocation techniques; design of optimal dynamic system trajectories. Also offered as ME 5335. Credit will be granted only once.

### **ME5309 – COMPUTER AIDED DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Role of graphics; image representation, batch and interactive computing, methods of automated mathematical model generation, mainframe and microcomputing in engineering design. Application in mechanical, structural, thermal, controls areas of mechanical engineering. Also offered as ME 5309. Credit will be granted only once.

### **ME5310 – FINITE ELEMENT METHODS**

**3** Lecture Hours · **0** Lab Hours

Finite element method in the study of the static response of complex structures and of continua; applications to field problems; analytical methods emphasized, and digital computer application undertaken. Also offered as AE 5310. Credit will be granted only once.

### **ME5311 – STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Natural frequencies; forced and random response of complex structural systems studied through the use of the finite element method; computational aspects of these problems discussed, and digital computer applications undertaken. Also offered as AE 5311. Credit will be granted only once.

### **ME5312 – CONTINUUM MECHANICS**

**3** Lecture Hours · **0** Lab Hours

Study of the underlying physical and mathematical principles relating to the behavior of continuous media; interrelationships between fluid and solid mechanics. Also offered as AE 5312. Credit will be granted only once.

### **ME5313 – FLUID DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Basic conservation laws, flow kinematics, special forms of the governing equations, two-dimensional potential flows, surface waves and some exact solutions of viscous incompressible flows. Offered as AE 5313. Credit will be granted only once.

### **ME5314 – FRACTURE MECHANICS IN STRUCTURAL DESIGN**

**3** Lecture Hours · **0** Lab Hours

Linear elastic fracture mechanics, general yielding fracture mechanics, damage tolerance and durability design, fail safe and safe life design criteria, analysis of fatigue crack growth, residual strength analysis. Also offered as AE 5314. Credit will be granted only once.

### **ME5315 – FUNDAMENTALS OF COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Fundamental relationships between the mechanical and hygrothermal behavior and the composition of multiphase media; failure criteria. Also offered as AE 5315 and MSE 5348. Credit will be granted only once.

### **ME5316 – THERMAL CONDUCTION**

**3** Lecture Hours · **0** Lab Hours

Fundamental laws, initial and boundary conditions, basic equations for isotropic and anisotropic media, related physical problems and steady and transient temperature distributions in solid structures.

### **ME5317 – CONVECTION HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

Equations of motion of viscous fluids are reviewed and the energy equations are introduced. Exact and approximate solutions are made for forced convective problems with non-isothermal and unsteady boundaries. Free convection and combined free- and forced-convection problems are solved.

### **ME5318 – RADIATIVE HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

General equations of radiative transfer derived and solved for special problems, and the elements of atomic, molecular, and continuum radiation are introduced.

### **ME5319 – ADVANCED FINITE ELEMENT METHODS**

**3** Lecture Hours · **0** Lab Hours

Continuation of ME 5310. Modeling of large systems, composite and incompressible materials, substructuring, mesh generation, solids applications, nonlinear problems. Also offered as AE 5319. Prerequisite: ME 5310 or equivalent.

### **ME5321 – ADVANCED CLASSICAL THERMODYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Fundamentals of thermodynamics reviewed. Different treatments of principles studied, compared and formal relationships developed and applied to chemical, magnetic, electric and elastic systems.

### **ME5322 – ADVANCED STRUCTURAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Normal mode method for undamped and proportionally damped systems, component mode synthesis, generally damped systems, complex modes, effect of design modification on system response. Prerequisite: ME 5311 or equivalent.

### **ME5325 – COMBUSTION**

**3** Lecture Hours · **0** Lab Hours

Fundamental treatment of problems involving simultaneous occurrence of chemical reaction and transfer of heat, mass and momentum. Topics include kinetically controlled combustion phenomena; diffusion flames in liquid fuel combustion; combustion of solids; combustion of gaseous fuel jets; flames in premixed gasses. Offered as AE 5325 and ME 5325. Credit will be granted only once.

### **ME5331 – ANALYTIC METHODS ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Introduction to advanced analytic methods in engineering. Methods include multivariable calculus and field theory, Fourier series, Fourier and Laplace Transforms. Prerequisite: Undergraduate degree in engineering, physics, or mathematics. Offered as AE 5331 and ME 5331. Credit will be granted only once.

### **ME5332 – ENGINEERING ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Introduction to partial differential equations and complex variable theory with application to modeling of physical systems. Also offered as AE 5332. Credit will be granted only once.

### **ME5335 – OPTIMAL CONTROL OF DYNAMIC SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Linear and nonlinear optimization methods; optimal control; continuous time Riccati equation; bang-bang control; singular arcs; differential inclusions; collocation techniques; design of optimal dynamic system trajectories. Also offered as AE 5335. Credit will be granted only once.

### **ME5336 – OPTIMAL ESTIMATION OF DYNAMIC SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Kalman filter design and implementation. Optimal filtering for discrete-time and continuous-time dynamical systems with noise. Wiener filtering. State-space determination. Prerequisite: introductory systems or identification course is desirable. Also offered as AE 5336 and EE 6327. Credit will be granted only once.

### **ME5337 – INTRODUCTION TO ROBOTICS**

**3** Lecture Hours · **0** Lab Hours

An overview of industrial robots and applications to traditional and emerging applications. Coordinate systems and homogeneous transformations, kinematics of manipulators; motion characteristics and trajectories; dynamics and control of manipulators; actuation and design issues. Programming of industrial

robotic manipulators in the laboratory. Also offered as AE 5337. Credit will be granted only once.

### **ME5338 – ANALYTICAL AND COMPUTATIONAL DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

The course focuses on developing the equations of motion for dynamic systems composed of multiple, connected and unconnected, rigid bodies using Kane's method and the Lagrangian approach. The resulting model is used to simulate and visualize the predicted motion. Topics include: kinematics, Euler parameters, kinematic constraints, virtual work, the calculus of variations, energy, momentum, contact, impact, and checking functions. Also offered as AE 5338. Credit will be granted only once.

### **ME5339 – STRUCTURAL ASPECTS OF DESIGN**

**3** Lecture Hours · **0** Lab Hours

Emphasis on determination of stresses and prediction of failure in machine and structural components; stress-strain relations in elastic and plastic regions; static failure and failure criteria; contact stress; notched sensitivity, strain-fatigue life relationship' characteristics of cracks in structural components. Also offered as AE 5339. Credit will be granted only once.

### **ME5340 – AUTOMOTIVE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

Introduction to automotive engine types and performance, drive train modeling and vehicle loading characteristics, fueling requirements, fuel injection systems, tire characteristics and modeling, suspension characteristics and handling, braking systems and requirements. Course taught through lecture, student presentations and student design projects.

### **ME5341 – CONTROL SYSTEM COMPONENTS**

**2** Lecture Hours · **3** Lab Hours

The components and hardware used in electronic, hydraulic, and pneumatic control systems; techniques of amplification, computation, compensation, actuation, and sensing; modeling of multiport systems as well as servo systems analysis. Pulse modulated systems. Prerequisite: Undergraduate introductory control course in Mechanical Engineering or equivalent or ME 5303 or equivalent. Also offered as AE 5341. Credit will be granted only once.

### **ME5342 – GAS DYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Review of fundamental compressible flow theory, method of characteristics for perfect gases, the Rankine-Hugoniot conditions, linearized flow theory. Also offered as AE 5342. Credit will be granted only once.

### **ME5343 – TWO-PHASE FLOW AND BOILING HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

This is to introduce significant progress in phase change heat transfer and two-phase flow. Boiling heat transfer will be followed by the study of pressure drop and heat transfer in the pipes of two-phase flow. Boiling heat transfer includes pool boiling, forced convection boiling, and critical heat flux. Also selected topics by the instructor (heat pipe, condensation, Helmholtz wave instability, etc.) Also offered as AE 5343. Credit will be granted only once.

### **ME5344 – VISCOUS FLOWS**

**3** Lecture Hours · **0** Lab Hours

Navier-Stokes equations and Prandtl's boundary layer approximations; laminar and turbulent boundary layers including internal and external flows. Also offered as AE 5344. Credit will be granted only once.

### **ME5345 – NUMERICAL HEAT TRANSFER**

**3** Lecture Hours · **0** Lab Hours

Discussion of numerical methods for conduction and convection heat transfer problems including

introduction to various computational techniques suitable for digital computers. Finite difference method is emphasized. Also offered as AE 5345. Credit will be granted only once.

### **ME5346 – COOLING OF ELECTRONIC PACKAGES**

**3** Lecture Hours · **0** Lab Hours

This course deals with the development and application of analytical models of thermal phenomena occurring in electronic equipment. The calculation of heat loads and temperature fields using different cooling techniques. Includes parameter evaluation and design studies.

### **ME5347 – HEAT EXCHANGER DESIGN**

**3** Lecture Hours · **0** Lab Hours

Design procedures, system evaluations and design parameters in heat exchangers. Heat exchanger configurations; student design projects.

### **ME5348 – INTRODUCTION TO ALTERNATIVE ENERGY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

The course introduces: Principles and thermodynamics applied to fuel cell-based power generation systems; materials and manufacturing methods of two common fuel cells and their stacks; modeling, analysis, and design of fuel cells and various reformers; and design issue of balance of plants such as steam management systems.

### **ME5349 – ADVANCED COMPOSITES**

**3** Lecture Hours · **0** Lab Hours

Review of current state-of-the-art applications of composites; structural properties; structure analysis; damage characterization and failure mechanism; notched sensitivity; delamination; fatigue characteristics; composite material testing; characteristics of composite joints. Also offered as MSE 5349 and AE 5325. Prerequisite: ME 5348, MSE 5348, or AE 5315, or consent of instructor

### **ME5351 – PRINCIPLES OF SOUND AND VIBRATION CONTROL**

**3** Lecture Hours · **0** Lab Hours

Fundamental principles of sound and vibration control will be developed. The coupling of mechanical vibrations to unwanted acoustic radiation will be examined using time domain analysis, frequency domain (spectral) analysis and correlation techniques. Standard control methods, including active vibration suppression, will be covered.

### **ME5352 – FUNDAMENTALS IN ELECTRONIC PACKAGING**

**3** Lecture Hours · **0** Lab Hours

An introductory treatment of electronic packaging, from single chip to multichip, including materials, electrical design, thermal design, mechanical design, package modeling and simulation, processing considerations, reliability, and testing.

### **ME5353 – APPLICATION OF COMPUTATIONAL TECHNIQUES TO ELECTRONIC PACKAGING**

**3** Lecture Hours · **0** Lab Hours

This course will develop the student's capability to characterize the heat performance of electronic cooling devices by using "Commercial Computational Heat Transfer Codes (IDEAS ESC, Icepack, Flotherm, CFDace, ...)." In addition, the use of MacroFlow, a network based model, for system-level thermal design for electronics cooling will be presented. A number of industry-related problems ranging from first-level packages through system-level packages would be analyzed. At the end of the class, a student is expected to formulate and model complex industry-based problems using the commercial CFD codes. There will be frequent industry speakers on specific projects being studied in the class.

### **ME5354 – FAILURES AND THEIR PREVENTION IN ELECTRONIC PACKAGES**

**3** Lecture Hours · **0** Lab Hours

A comprehensive overview of the fundamental causes for failures in electronic assemblies which include the printed wiring board, package, and second-level assemblies. Failure detection techniques and methodologies, key failure analysis techniques used will be discussed.

### **ME5355 – MECHANICAL FAILURE OF ELECTRONIC PACKAGES**

**3** Lecture Hours · **0** Lab Hours

Failure analysis, fatigue of electronic packages, fracture and creep behavior of solders. Mechanical properties of substrate materials. Electromigration and failure mechanisms.

### **ME5356 – CHIPSCALE PACKAGING**

**3** Lecture Hours · **0** Lab Hours

Overview of area array packaging with special emphasis on the maturing chip scale packaging technology. Topics covered will include the design concepts of this technology, the materials related aspects, the manufacturing processes, and their reliability in a variety of applications.

### **ME5358 – RACECAR ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

This course intended for Formula SAE team members and other interested students to develop new systems or analyze concepts for the Formula SAE or Formula Electric racecar and related equipment. The students will form teams and perform research and development on projects related to automotive or racecar engineering.

### **ME5359 – APPLIED AUTOMOTIVE ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to gain practical experience in the design and fabrication of parts or systems for automotive applications. The student must write a proposal, give a public oral presentation, and prepare a formal final report. The student must have attained full team member status in a student design competition team. Prerequisites: permission of Director of the Arnold E. Petsche Center for Automotive Engineering.

### **ME5360 – MULTIDISCIPLINARY INVERSE DESIGN AND OPTIMIZATION**

**3** Lecture Hours · **0** Lab Hours

For a new design of any realistic device to be competitive, it must satisfy a number of often conflicting requirements, objectives, and constraints. This course offers a variety of basic concepts and methodologies for inverse design and optimization with practical applications in fluid mechanics, heat transfer, elasticity, and electromagnetism. Offered as AE 5360 and ME 5360. Credit will be granted only once.

### **ME5363 – INTRODUCTION TO ROTORCRAFT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

History of rotorcraft. Behavior of the rotor blade in hover and forward flight. Rotor configurations, dynamic coupling with the fuselage, elastic and aeroelastic effects. Offered as AE 5363 and ME 5363. Credit will be granted only once.

### **ME5364 – INTRODUCTION TO AERODYNAMICS OF ROTORCRAFT**

**3** Lecture Hours · **0** Lab Hours

Practical aerodynamics of rotors and other components of rotorcraft. Introduction to performance, handling qualities, and general flight mechanics related to rotorcraft design, test, and certification requirements. Emphasis is on rotorcraft mission capabilities as defined by the customer. Also offered as AE 5364. Credit will be granted only once.

### **ME5365 – INTRODUCTION TO HELICOPTER AND TILTROTOR SIMULATION**

**3** Lecture Hours · **0** Lab Hours

Dynamic and aerodynamic modeling of rotorcraft elements using vector mechanics, linear algebra, calculus

and numerical methods. Special emphasis on rotors, aerodynamic interference, proper axis system representation, model assembly methods and trimming. Offered as AE 5365 and ME 5365. Credit will be granted only once.

### **ME5366 – FUEL CELLS AND APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

The course introduces: Principles and thermodynamics applied to fuel cell-based power generation systems; materials and manufacturing methods of two common fuel cells and their stacks; modeling, analysis, and design of fuel cells and various reformers; and design issue of balance of plants such as steam management systems.

### **ME5374 – NONLINEAR SYSTEMS ANALYSIS AND CONTROLS**

**3** Lecture Hours · **0** Lab Hours

Nonlinear systems; phase plane analysis; Poincare-Bendixon theorems; nonlinear system stability; limit cycles and oscillations; center manifold theorem, Lyapunov methods in control; variable structure control; feedback linearization; backstepping techniques. Also offered as AE 5374. Credit will be granted only once.

### **ME5380 – DESIGN OF DIGITAL CONTROL SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Difference equations, z- and w- transforms, discrete TF (Transfer Function). Discrete equivalence (DE) to continuous TF. Aliasing & Nyquist sampling theorem. Design by DE, root locus in z- plane & Youla parameterization. Discrete state- space model, minimality after sampling, pole placement, Moore-Kimura method, linear quadratic regulator, asymptotic observer. Computer simulation and/or laboratory implementation Prerequisite: undergraduate level controls course or equivalent. Also offered as AE 5380, EE 5324. Credit will be granted only once.

### **ME5381 – BOUNDARY LAYERS**

**3** Lecture Hours · **0** Lab Hours

An introductory course on boundary layers. The coverage emphasizes the physical understanding and the mathematical foundations of boundary layers, including applications. Topics covered include laminar and turbulent incompressible and compressible boundary layers, and an introduction to boundary layer transition. Also offered as AE 5381. Credit will be granted only once.

### **ME5390 – SPECIAL TOPICS IN MECHANICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

To provide formal instruction in special topics pertinent to Mechanical Engineering from semester to semester depending on the availability of faculty. May be repeated provided topics differ.

### **ME5391 – ADVANCED STUDIES IN MECHANICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as topics change. Project work performed under a non-thesis degree will normally be accomplished under this course number, with prior approval of the Committee on Graduate Studies.

### **ME5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Thesis

### **ME5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Thesis Prerequisite: GRAD ME thesis major



### **ME5998 – THESIS**

9 Lecture Hours · 0 Lab Hours

Thesis Prerequisite: GRAD ME thesis major

### **ME6196 – MECHANICAL ENGINEERING INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

For students participating in internship programs. May be repeated for credit. Requires prior approval of ME Graduate Advisor.

### **ME6197 – RESEARCH IN MECHANICAL ENGINEERING**

1 Lecture Hour · 0 Lab Hours

May be repeated for credit.

### **ME6297 – RESEARCH IN MECHANICAL ENGINEERING**

2 Lecture Hours · 0 Lab Hours

May be repeated for credit.

### **ME6299 – DISSERTATION**

2 Lecture Hours · 0 Lab Hours

Prerequisite: Admission to candidacy for the Doctoral of Philosophy degree

### **ME6310 – ADVANCED FINITE ELEMENT METHODS**

3 Lecture Hours · 0 Lab Hours

Modeling of large systems, composite and incompressible materials, substructuring, mesh generation, solids applications, nonlinear problems. Also offered as AE 6310. Prerequisite: ME 5310, AE 5310 or equivalent. Credit will be granted only once.

### **ME6311 – ADVANCED STRUCTURAL DYNAMICS**

3 Lecture Hours · 0 Lab Hours

Normal mode method for undamped and proportionally damped systems, component mode synthesis, generally damped systems, complex modes, effect of design modification on system response. Also offered as ME 6311. Prerequisite: ME 5311, AE 5311 or equivalent. Credit will be granted only once.

### **ME6315 – ADVANCED COMPOSITES**

3 Lecture Hours · 0 Lab Hours

Review of current state-of-the-art applications of composites: composite structural analysis; structural properties, damage characterization and failure mechanism; stiffness loss due to damage, notched sensitivity; delamination; impact; fatigue characteristics; composite material testing; material allowables; characteristics of composite joints. Also offered as ME 6315 and MSE 5349. Prerequisite: ME 5315, AE 5315 or MSE 5348 or equivalent. Credit will be granted only once.

### **ME6316 – ADVANCED ROBOTICS**

3 Lecture Hours · 0 Lab Hours

Advanced design concepts such as application of optimization technique and analytical approaches such as 3-D homogeneous matrix method will be introduced. Structural dynamics and control strategy for both rigid and flexible manipulators will be studied.

### **ME6337 – ADVANCED ROBOTICS**

3 Lecture Hours · 0 Lab Hours

Advanced robotic design concepts considering structural statics, dynamics and control strategies for both



rigid and flexible manipulators will be studied using optimization techniques and analytical approaches and introduction to micro- and mobile robotic devices. Study of emerging applications of robotics will be explored. Digital simulation of robotic devices and programming and demonstration of robotic devices in the laboratory. Prerequisites AE 5337, ME 5337 or equivalent. Credit will be granted only once.

### **ME6344 – HEAT TRANSFER IN TURBULENT FLOW**

**3** Lecture Hours · **0** Lab Hours

Introduction to heat transfer in turbulent boundary layers including internal and external flows, turbulence structure, the Reynolds analogy, van Driest hypothesis, high and low Prandtl number two equation model, effects of surface roughness on heat transfer. Also offered as AE 6344. Credit will be granted only once.

### **ME6345 – TURBULENCE**

**3** Lecture Hours · **0** Lab Hours

Physical, numerical and theoretical aspects of turbulence. Review of the conservation equations for incompressible flow. Statistical descriptions pertaining to fluid mechanics. Classical description of turbulence via Reynolds averaging is developed with emphasis on homogeneous, isotropic turbulence. Application to free and wall-bounded flows. Modeling and simulation, including direct numerical simulation, classical turbulence modeling, PDF methods and large eddy simulation. Prerequisites: An advanced course in fluid mechanics (AE/ME 5313) or continuum mechanics (AE/ME 5312). Familiarity with vector or tensor notation is expected.

### **ME6397 – RESEARCH IN MECHANICAL ENGINEERING**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6697 – RESEARCH IN MECHANICAL ENGINEERING**

**6** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: Admission to candidacy for the Doctor of Philosophy degree.

### **ME6997 – RESEARCH IN MECHANICAL ENGINEERING**

**9** Lecture Hours · **0** Lab Hours

May be repeated for credit.

### **ME6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Admission to candidacy for the Doctor of Philosophy degree.

### **ME7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment

requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Art + Art History

College of Liberal Arts

### Chair Robert Hower

Web [www.uta.edu/art/](http://www.uta.edu/art/)  
Email [npalmeri@uta.edu](mailto:npalmeri@uta.edu)  
Phone 817.272.2891  
Fax 817.272.2805

Office 335 Fine Arts Building

---

### Degrees / Certificates

**Master's Degrees**  
Art, M.F.A.

---

### Graduate Faculty

**Professor**

[Robert Hower](#)  
[Benito Huerta Lozano](#)  
[David Keens](#)  
[Kenda North](#)  
[Nancy Palmeri](#)  
[Mary Vaccaro](#)

**Associate Professor**

[Lisa Graham](#)  
[Marilyn Jolly](#)  
[R Leighton McWilliams](#)  
[Andrew Ortiz](#)  
[Jack Plummer](#)  
[Barton Weiss](#)  
[Nicholas Wood](#)

**Assistant Professor**

[Amanda Alexander](#)  
[Melia Belli](#)  
[Zenas Ikeda](#)  
[Darryl Lauster](#)  
[Benjamin Lima](#)  
[Dwain Ya'Ke Smith](#)  
[Salvatore Terrasi](#)

**Special Member**

[Bryan Florentin](#)  
[Sedrick Huckaby](#)  
[Stephen Laphthisophon](#)

---

## Graduate Advisors

**Nancy Palmeri**

*Art, M.F.A.*

---

## Department Information

### Courses

# Department Information

## Objective

### Admissions Requirements

- **Unconditional Admission**
- **Provisional Admission**
- **Probationary Admission**
- **Deferred Admission**
- **International Student Admission**

### Graduate Teaching Assistant

### Fellowships

### Advisement and Supervisory Committees

### Degree Requirements

- **M.F.A. Course Requirements**
- **Studio Art (ART)**
- **Graduate Review Exhibition Requirements**
- **Mid-Program Review Requirements**
- **M.F.A. Thesis Requirements**
- **M.A. in Humanities with Art History Concentration**

## Objective

The mission of the Program in Studio Art is to:

1. Encourage and guide MFA students to successfully complete the recognized terminal degree in the practice of art.
  - a. Self discipline
  - b. Self confidence
  - c. Proficiency in their work
  - d. Open Communication
2. Enable artists, filmmakers, and designers in the program to develop habits of:
  - a. Make connections with various media and mediums to expand visual and conceptual vocabulary
  - b. Meet distinguished artists, filmmakers and designers to enhance the meaningful on-going dialogue related to their work and future.
3. Enable students to:
4. Provide studio space for students to explore methods of concept development, the exploration of time based media, reflection and development of personal work.

5. Encourage students to develop new skills and enhance existing ones. Expand the conventional concepts of the "studio" and are encouraged to develop their personal style and direction.
6. Encourage graduates to compete for professional positions in teaching, artistic fields and pursue careers as exhibiting artists, filmmakers/writers, and designers.

## Admissions Requirements

A personal interview with the Graduate Advisor or members of the Studio Art faculty is recommended.

Three letters of recommendation are required, and it is suggested that at least two of the letters come from former educators or academic contact. A portfolio, transcripts, and letter of intent are also required. Please review the Art and Art History website, [www.uta.edu/art](http://www.uta.edu/art) for materials due dates.

### Unconditional Admission

Applicants must possess a bachelor's degree from an accredited college or university. Submit transcripts from all previous college or university work, and three letters of recommendation are required of all applicants. In addition, applicants should have a minimum Grade Point Average (GPA) of 3.0, as calculated by the Graduate School. Applicants must submit a portfolio and statement of intent. The Art and Art History faculty review all materials and positively recommend acceptance into the M. F. A. program.

### Provisional Admission

Those who have submitted their applications forms, but whose packets are incomplete, can be admitted provisionally if their GPA is at least 3.0, and if the program and the Graduate School have received official transcripts. In this case, incomplete materials could include letters of recommendation.

### Probationary Admission

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, portfolio, statement of intent, and GPA), can be admitted on probation, with the condition that they make no less than a B in the first 12 hours of coursework in their art concentration. Such students must complete no fewer than 9 credits during the semester in which they are on probation.

### Deferred Admission

Those who have weaknesses in no more than two of the Degree Requirements (letters of recommendation, portfolio, statement of intent, and GPA), and/or who have not submitted all of the materials required for unconditional admission, can have their applications deferred for one semester, until outstanding requirements and criteria are met.

### International Student Admission

International applicants must have a bachelor's degree from a regionally accredited U.S. college or university or its foreign equivalent, a GPA of at least 3.0 as calculated by the Graduate School, 3 letters of recommendation, portfolio and letter of intent to be considered for admission. In addition, applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL) or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:

Writing: 22  
 Speaking: 21  
 Reading: 20  
 Listening: 16

Those who do not meet the English proficiency requirement must satisfactorily complete courses in the ESOL area, as approved by the program and the Graduate School.

## Graduate Teaching Assistant

To be considered for a Graduate Teaching Assistant position, the candidate must be admitted unconditionally. Candidates whose native language is not English must submit a score 45 on the Test of Spoken English (TSE-A), a score of 23 on the TOEFL iBT Speaking subtest, or a score of 45 on UT Arlington's SEA test. GTA positions in the Department of Art and Art History are limited and are very competitive.

## Fellowships

To be considered for a Dean's Fellowship the candidate must have a favorable review in most of the evaluation criteria. Candidates must be new students coming to The University of Texas Arlington, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours of 3.0, and must be enrolled in a minimum of 6 hours in both long semesters to retain their fellowships. Fellowships in Department of Art and Art History are limited and very competitive.

## Advisement and Supervisory Committees

The Graduate Advisor will advise all incoming graduate students. After a student has selected a supervisory committee and submitted a program of work, the major professor becomes his/her advisor. Students should consult the Graduate Student Handbook for details on forming a supervisory committee, creating a program of work and other requirements.

## Degree Requirements

### M.F.A. Course Requirements

The graduate course requirements for the M.F.A. of 60 semester credit hours are normally distributed over six semesters of a three-year program. The student will be required to spend a minimum of three semesters in the M.F.A. program with one academic year in residency as a full time student.

#### Specific Course Requirements:

Area of Concentration	39 semester credit hours
Supporting Studio Courses	9 semester credit hours
Art History	9 semester credit hours
Free electives	3 semester credit hours
Combination will total	60

Courses outside the area of concentration (supporting and free electives) should be taken from faculty other than the major professor. It is strongly recommended that the students study with a minimum of three additional faculty members during the course of his/her program. Students are also encouraged to take a free elective outside the Art and Art History Department.

The supervisory committee will approve the course options (work) and scholarly research. It is emphasized that this is a committee/department option, not a student option.

## Studio Art (ART)

### Concentration Required Courses:

ART5330	CRITICAL PERSPECTIVES IN THE VISUAL ARTS & VISUAL COMMUNICATION
ART5340, 5640	RESEARCH IN INTERMEDIA (STUDIO)
ART5342, 5642	RESEARCH IN GLASS
ART5355, 5655	RESEARCH IN VISUAL COMMUNICATION
ART5360	TOPICS IN THE HISTORY OF ART (VARIED)
ART5383, 5683	RESEARCH IN FILM/VIDEO
ART5698	THESIS EXHIBITION
(6 HOURS OF CONCENTRATION COURSE)	

### Prescribed Elective Courses:

ART5320	HISTORY OF ART CRITICISM
ART5341, 5641	RESEARCH IN SCULPTURE
ART5342, 5642	RESEARCH IN GLASS
ART5343, 5643	RESEARCH IN PRINTMAKING
ART5347, 5647	RESEARCH IN DRAWING
ART5353, 5653	RESEARCH IN METALS
ART5355, 5655	RESEARCH IN VISUAL COMMUNICATION
ART5357, 5657	RESEARCH IN FILM/VIDEO
ART5359, 5659	RESEARCH IN PHOTOGRAPHY DIGITAL IMAGING
ART5363, 5663	RESEARCH IN CLAY
ART5371, 5671	RESEARCH IN PAINTING
ART5391	INDEPENDENT STUDY

### Example Course Sequence:

#### FIRST YEAR

FALL	SPRING
5330 Critical Perspectives	5300 Topics in the History of Art
56xx Research in	56xx Research in

Concentration	Concentration
	53xx Research in Supporting Studio
-----	-----
<b>9 Credits</b>	<b>12 Credits</b>

*SECOND YEAR\**

<b>FALL</b>	<b>SPRING</b>
5360 Topics in the History of Art	53xx Research in Supporting Studio
56xx Research in Concentration	56xx Research in Concentration
53xx Free Elective	
-----	-----
<b>12 Credits</b>	<b>9 Credits</b>

*THIRD YEAR*

<b>FALL</b>	<b>SPRING</b>
53xx Research in Supporting Studio	53xx Research in Concentration
56xx Research in Concentration	**56xx Thesis Exhibition
	(Research in Concentration)
-----	-----
<b>9 Credits</b>	<b>9 Credits</b>

**Total 60 credit hours required for MFA**

\*Mid-Program review completed after 30 credits

\*\*Thesis Exhibition, Oral Exam and research paper completed during this semester. Summer opportunities may be available to complete required course work. This is dependent upon the faculty availability.

**Graduate Review Exhibition Requirements**

Each spring semester, the graduate students will be required to organize a summer exhibition of their recent work.

1. The number of work each student may exhibit will depend upon the number of exhibitors, size of work, etc., but we would expect that each student will be able to exhibit or screen several pieces.
2. These exhibitions and screenings will be drawn from the work done by each student in the previous spring and fall semesters-and will therefore represent each student's most recent efforts.
3. Each student will write an "artist's statement" to accompany his/her work on exhibit.

At the end of the exhibition, the graduate students will hold a formal "closing". All graduate students are expected to attend.

**Mid-Program Review Requirements**

The preliminary examination for the M.F.A. degree at the University of Texas Arlington is the Mid-Program Review.



When the student has completed one-half of her/his program of study, the supervisory committee will conduct a comprehensive review of the student's work in order to ascertain if satisfactory progress is being made toward completion of the degree. The student will present all visual work done to this point, along with an outline and preliminary draft of the written document which is part of the thesis requirement (see below).

To pass, the student must receive a unanimous vote of the committee members. A failed review may be retaken once with permission from the Director of the MFA program and the MFA Graduate Studies Committee. If the student still does not pass, the Director of the MFA program will report the failure and the termination of the student's enrollment in the M.F.A. program to the Graduate School.

### **M.F.A. Thesis Requirements**

The thesis requirement for the M.F.A. degree consists of the following:

- The Thesis Exhibition: A substantial body of original works of art to be exhibited or screened on campus at a time announced to all graduate faculty.
- A written document in which the candidate demonstrates proficiency in conducting research and in analyzing, interpreting and organizing material, as well as demonstrating the ability to communicate perceptions, insights, and conclusions.
- During the last semester of the MFA candidates study a final oral examination coordinated by the supervising committee will be completed.
- Satisfactory completion of the visual and written portions of the thesis and the final oral examination is required for the awarding of the M.F.A. degree.

Specific requirements for the written document are found in Guidelines for the M.F.A.

### **M.A. in Humanities with Art History Concentration (See Program in Humanities for additional requirements)**

The graduate course offerings in art history are provided to support other graduate degree programs, for example, an art history concentration in Humanities, and to meet the express needs of students. No program leading to a graduate degree in art or art history exists at this time.

## **ART Courses**

### **ART5000 – SUPERVISED TEACHINGSTUDIO ART**

1 Lecture Hour · 0 Lab Hours

Training in teaching methods and procedures for studio art classes, including weekly group meetings with the instructor and individual consultations. Prerequisite: graduate standing in studio art, or graduate standing and appointment as a teaching assistant. May be repeated.

### **ART5320 – ART CRITICISM & THEORY**

3 Lecture Hours · 0 Lab Hours

A discussion of placing art within the context of the history of ideas.

### **ART5330 – CRITICAL PERSPECTIVE IN THE VISUAL ARTS & VISUAL COMMUNICATION**

3 Lecture Hours · 0 Lab Hours

Seminar course that focuses on graduate student interaction with visiting artists, scholars, curators, critic, designers, and filmmakers.

### **ART5340 – RESEARCH IN INTERMEDIA**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5341 – RESEARCH IN SCULPTURE**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5342 – RESEARCH IN GLASS**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5343 – RESEARCH IN PRINTMAKING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5347 – RESEARCH IN DRAWING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5353 – RESEARCH IN METALS**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of the instructor and the graduate advisor.

### **ART5355 – RESEARCH IN VISUAL COMMUNICATION**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5359 – RESEARCH IN PHOTOGRAPHY DIGITAL IMAGING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and graduate advisor.

### **ART5360 – TOPICS IN THE HISTORY OF ART & DESIGN**

**3** Lecture Hours · **0** Lab Hours

Special seminar/topics course focusing on enhancing the art and design knowledge base of MFA candidates in the areas of film/video, visual communication, intermedia-expanded studio, and glass as art.

### **ART5363 – RESEARCH IN CLAY**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5371 – RESEARCH IN PAINTING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5383 – RESEARCH IN FILM/VIDEO & SCREENWRITING**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5391 – INDEPENDENT STUDY**

**2** Lecture Hours · **4** Lab Hours

Independent and directed research in the area of Studio Intermedia. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5392 – INDEPENDENT STUDY IN VISUAL COMMUNICATION**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the study of Visual Communication.

### **ART5393 – INDEPENDENT AND DIRECTED RESEARCH IN FILM AND VIDEO**

**2** Lecture Hours · **4** Lab Hours

Independent and directed research in Film and Video.

### **ART5394 – INDEPENDENT STUDY IN GLASS**

**0** Lecture Hours · **6** Lab Hours

Independent and directed research in the study of glass.

### **ART5395 – INDEPENDENT STUDY IN ART HISTORY AND CRITICISM**

**2** Lecture Hours · **4** Lab Hours

Independent and directed research in art history and criticism.

### **ART5396 – SPECIAL TOPICS IN ART HISTORY**

**3** Lecture Hours · **0** Lab Hours

Subjects of immediate interest in various fields of art history; to compliment faculty research specializations. May be repeated for credit as course content changes. Permission of the instructor required.

### **ART5397 – MASTER OF FINE ARTS EXHIBITION**

**1** Lecture Hour · **5** Lab Hours

This course is intended to be the final course in the Master of Fine Arts (M.F.A.) students program of study. Here, students will concentrate their studio activity towards the completion of a body of work to be

exhibited, complete the written component of the degree as well as oral examinations. Students must have 30 hours of coursework in the concentration completed in their program of study prior to enrolling for this course.

### **ART5640 – RESEARCH IN INTERMEDIA**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5641 – RESEARCH IN SCULPTURE**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5642 – RESEARCH IN GLASS**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5643 – RESEARCH IN PRINTMAKING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5647 – RESEARCH IN DRAWING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5653 – RESEARCH IN METALS**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5655 – RESEARCH IN VISUAL COMMUNICATION**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

### **ART5659 – RESEARCH IN PHOTOGRAPHY DIGITAL IMAGING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5663 – RESEARCH IN CLAY**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5671 – RESEARCH IN PAINTING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5683 – RESEARCH IN FILM/VIDEO & SCREENWRITING**

**2** Lecture Hours · **10** Lab Hours

Independent and directed research in the student's area of concentration. Studio hours to be arranged. May be repeated for credit. Prerequisite: graduate standing in studio art and consent of instructor and the graduate advisor.

## **ART5697 – MASTER OF FINE ARTS EXHIBITION**

**2** Lecture Hours · **10** Lab Hours

This course is intended to be the final course in the Master of Fine Arts (M.F.A.) student's program of study. Here, students will concentrate their studio activity towards the completion a body of work to be exhibited, complete the written component of the degree as well as oral examinations. Students must have 30 hours of coursework in the concentration completed in their program of study prior to enrolling for this course.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Communication

College of Liberal Arts

### Chair Charla Markham Shaw

Web [www.uta.edu/communication/](http://www.uta.edu/communication/)

Email [comm@uta.edu](mailto:comm@uta.edu)

Phone 817.272.2163

[118 Fine Arts](#)

---

### Degrees / Certificates

#### Master's Degrees

Communications, M.A.

---

### Graduate Faculty

#### Associate Professor

[Thomas Christie](#)

[Andrew Clark](#)

[Tom Ingram](#)

[Chyng-Yang Jang](#)

[Charla Markham Shaw](#)

[Eronini Megwa](#)

#### Assistant Professor

[Karishma Chatterjee](#)

[Dustin Harp](#)

[Erika Pribanic-Smith](#)

[Chunke Su](#)

[Mark Tremayne](#)

[Shelley Wigley](#)

#### Senior Lecturer

[Brian Horton](#)

---

### Graduate Advisors

[Thomas Christie](#)

*Communications, M.A.*

---

### Department Information

### Courses

## Department Information

### Objective

#### Admission Standards

- **Graduate Admission Standards**
- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Status**
- **Denial of Admission**
- **Fellowship Criteria**

#### Degree Requirements

### Objective

The Master of Arts in Communication program includes the areas of Communication Studies and Mass Communication. It is designed to meet the educational needs of recent graduates and professionals.

The program's curriculum emphasizes the integrated nature of the communication discipline. For example, the program offers education in the management of media resources, the changing role of media and technology in an information society, and a theoretical and ethical framework for considering the impact of media on society.

Educational and organizational professionals can focus on working with both external and internal constituencies and communication processes of management, training and development, and human resources. A broader knowledge of communication processes at the interpersonal, organizational, and mass media levels provides the opportunity for career enhancement and/or further graduate studies.

### Admission Standards

Prospective students must apply for admission through, and supply all information required by the Graduate School. In addition, the following information will be considered in determining admission status into the program: undergraduate GPA, GRE scores, letters of recommendation and an essay. All criteria are considered together; no single factor will eliminate a prospective student from consideration.

The following table outlines specific requirements for unconditional and probationary admission.

Graduate Admission Standards			
Admission Criteria	Unconditional	Probationary	
GPA on last 60 hours of Undergraduate Program (as calculated by Graduate School of UT Arlington)	3.3	3.0 <sup>[1]</sup>	2.8-2.99
GRE	Evaluated	Evaluated	Evaluated
3 letters of recommendation	Evaluated	Evaluated	Evaluated
Essay	Evaluated	Evaluated	Evaluated

## Administration

[1] Minimum undergraduate GPA requirement for unconditional admission is a 3.0 on a 4.0 scale.

Students not meeting unconditional criteria will be reviewed by a committee of Chair of the Department of Communication, Graduate Advisor, and Graduate Program Committee. The committee will review the following: a minimum undergraduate GPA of 2.8 (in last 60 hours of undergraduate work); GRE scores (verbal, analytical and quantitative); letters of recommendation; and essay. An applicant who performs successfully on a majority of these criteria may be admitted on probation. The committee will make a final admission decision and document that decision for the student record.

## Unconditional Admission

Criteria for unconditional admission status are designated in the previous table. Decisions on unconditional admission are made after considering the minimum GPA noted in the graduate admission standards and all other criteria noted in the preceding paragraph.

## Probationary Admission

Criteria for probationary admission status are designated in the previous table. When on probation, students can make no grade lower than a 3.0 in their first 12 semester hours of graduate coursework.

## Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

## Deferred Status

Deferred decision is granted when a file is incomplete or when a denied decision is not appropriate.

## Denial of Admission

An applicant will be denied admission if he or she has less than satisfactory performance on a majority of admission criteria listed in the previous table.

## Fellowship Criteria

Fellowship selection will be based on the highest GPA in the last 60 hours of the bachelor's degree program. Candidates for fellowships must meet the following criteria:

1. New students coming to UT Arlington in the fall of each semester.
2. Have a GPA of at least 3.0 in their last 60 hours of their bachelor's degree program.
3. Minimum 3.0 GPA in graduate credit hours.
4. Enrolled in a minimum of 6 semester hours in the long semesters.

## Degree Requirements

The Master of Arts in Communication degree offers non-thesis/coursework and thesis options. The non-thesis/coursework option will require 36 hours of coursework. The thesis option will require 30 hours that will include 24 credit hours of coursework and a 6-credit-hour thesis. A final comprehensive examination will be required of students in all options.

### Courses required of all students in the program in the first semester:

COMM 5300	Advanced Theories in Communication	3
COMM 5305	Communication Research Methods	3



Total

6

**Course required of all students in the program in the second semester:**

COMM 5306 Qualitative Research Methods\* 3

\*An advanced quantitative research methods course from another department may be substituted for this course with the permission of the communication graduate advisor

**Courses students may elect to take:**

*Thesis Option:* Select at least 6 hours from the following communication electives.

*Non-Thesis/coursework Option:* Select at least 18 hours from the following communication electives.

COMM 5310	Theories in Persuasion
COMM 5316	Corporate Communication Strategies
COMM 5320	Advanced Visual Communication
COMM 5321	Advanced Internet Marketing Communication
COMM 5323	Computer-Mediated Communication
COMM 5332	Advanced Professional Communication
COMM 5335	Global Communication
COMM 5341	Media Management
COMM 5345	Communication Campaigns
COMM 5346	Media and Public Policy
COMM 5347	Crisis Communication
COMM 5392	Seminar

Graduate courses outside the department may be taken with the approval of the Graduate Studies Committee. Students should submit a letter to the graduate advisor including course title, course description, and statement of value to the program of study.

*Non-Thesis Option.* (36 semester hours total) 36 semester credit hours of coursework are given. The final comprehensive examination will consist of an oral exam covering the coursework. Additional remedial work may be required if deemed necessary by the student's committee. Students failing the examination will not be allowed to test again.

*Thesis Option.* (30 semester hours total) 24 semester credit hours of coursework and a thesis, for which 6 semester hours are given. The final comprehensive examination will consist of an oral defense of the thesis prospectus and an oral defense of the thesis. Additional remedial work may be required if deemed necessary by the student's committee.

**COMM Courses****COMM5300 – ADVANCED THEORIES IN COMMUNICATION**

3 Lecture Hours · 0 Lab Hours

Advanced study of communication theories: interpersonal, organizational, mass media and intercultural.

**COMM5301 – SUPERVISED TEACHING**

0 Lecture Hours · 3 Lab Hours

Application of theory to the practices of teaching college courses in communication. Students will handle all aspects of the classroom including lecturing, conducting class discussions, issuing assignments, grading and assigning grades under the supervision of the course director. No unit credit will be allowed toward

advanced degree.

### **COMM5305 – COMMUNICATION RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Study and application of communication research, design and methodology. Students will apply statistics in communication research and complete a research project/paper.

### **COMM5306 – QUALITATIVE RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Advanced study and application of qualitative communication research, design and methodology.  
Prerequisite: COMM 5300 and COMM 5305.

### **COMM5310 – THEORIES IN PERSUASION**

**3** Lecture Hours · **0** Lab Hours

A comparison of traditional with contemporary behavioral science theories of persuasive discourse and their supporting research.

### **COMM5316 – CORPORATION COMMUNICATION STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

Examines organizational communication strategies with special emphasis on how communication affects corporate constituencies. Corporate image and identity are linked to corporate advertising, press releases, financial communication, internal communication and crisis communication

### **COMM5320 – ADVANCED VISUAL COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Theory of visual communication in technical communication. Practice includes conceptualization, development and production

### **COMM5321 – ADVANCED INTERNET MARKETING COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Study of the use of information technology to optimize advertising, promotion, public relations and sales functions. Examines an infrastructure of the Internet and how it affects information retrieval, Web design, Web site management and Web site security. Discusses research strategies, usage trends and social implications

### **COMM5323 – COMPUTER-MEDIATED COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Study of theoretical and practical issues associated with modern communication technology and computer-mediated communication in interpersonal and organizational communication contexts.

### **COMM5332 – ADVANCED PROFESSIONAL COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Advanced study of the theory and practice in written and oral presentations with emphasis on the application of communication theory in organizational and technical professions. Development of strategic communication plans to influence audience perceptions and evaluate changes.

### **COMM5335 – GLOBAL COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Examination of verbal and nonverbal barriers to effective intercultural and international communication. Developing effective communication in advanced study of communication theories: interpersonal, organizational, mass media and intercultural contexts and exploring the definition and impact of global

communication.

### **COMM5341 – MEDIA MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Study of media policy and regulation; media, cultural, and management theories; media economics; accounting and finance; business strategy, management and marketing

### **COMM5345 – COMMUNICATION CAMPAIGNS**

**3** Lecture Hours · **0** Lab Hours

Advanced study of communication theories and research with the goal of developing strategic communication plans, including the selection of the appropriate vehicles and creative tactics. Team project required

### **COMM5346 – MEDIA AND PUBLIC POLICY**

**3** Lecture Hours · **0** Lab Hours

Advanced study of communication theories and research related to understanding the linkage between media, public opinion and public policy. Individual and/or team project required.

### **COMM5347 – CRISIS COMMUNICATION**

**3** Lecture Hours · **0** Lab Hours

Advanced study of communication theories related to crisis communication and strategies used to communicate with stakeholders before, during and after crisis situations.

### **COMM5391 – CONFERENCE COURSE**

**3** Lecture Hours · **0** Lab Hours

Topic assigned on an individual basis, covering individual research or study in the designated areas. Can be taken no more than two times for credit. Prerequisite: permission of the department.

### **COMM5392 – SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Special topics. Topic varies from semester to semester. May be repeated when topic changes.

### **COMM5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Student completion of a research project on a subject of primarily theoretical interest, intended for an academic audience. Prerequisite: satisfactory completion of coursework and consent of thesis advisor.

### **COMM5399 – GRADUATE COMMUNICATION INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Practical training and experience in the field of communication. Applied communication research project is required. Course counts as an elective and has a pass/fail grade. No credit will be given for current employment, previous experience or activities. Prerequisite: Minimum nine graduate semester hours completed. Subject to departmental approval.

### **COMM5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Student completion of a research study on a subject of primarily theoretical interest, intended for an academic audience. Prerequisite: satisfactory completion of thesis proposal defense and consent of thesis advisor.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Criminology & Criminal Justice

College of Liberal Arts

### Chair Alejandro Del Carmen

Web [www.uta.edu/criminology/](http://www.uta.edu/criminology/)

Phone 817.272.3318

Fax 817.272.5673

**362 University Hall**

---

### Degrees / Certificates

#### Master's Degrees

Criminal Justice Masters Cohort

Criminology and Criminal Justice, M.A.

---

### Graduate Faculty

#### Professor

[Alejandro Del Carmen](#)

#### Associate Professor

[Robert Bing](#)

#### Assistant Professor

[Jaya Davis](#)

[Seokjin Jeong](#)

[Tony Love](#)

[John Rodriguez](#)

#### Visiting Assistant Professor

[Christopher Copeland](#)

#### Senior Lecturer

[Randall Butler](#)

[Karel Carpenter](#)

[Rhonda Dobbs](#)

[Patricia Eddings](#)

[Kristy Smith](#)

[Royce West](#)

---

### Graduate Advisors

#### [Rhonda Dobbs](#)

*Criminology and Criminal Justice, M.A.*

#### [John Rodriguez](#)

*Criminology and Criminal Justice, M.A.*

---

## Department Information

### Courses

# Department Information

## Criminology and Criminal Justice, M.A. (Arlington Campus)

### Objectives

#### Admission and Degree Requirements

- Unconditional Admission
- Probationary Admission
- Deferred Admission
- Provisional Admission
- Denial
- Fellowships

#### Dual Degree Program

## Criminology and Criminal Justice Cohort Program, M.A. Degree (Ft. Worth Campus)

### Objectives

#### Admission and Degree Requirements

- Unconditional Admission
- Probationary Admission
- Deferred Admission
- Provisional Admission
- Denial

#### Course Sequence

### Objectives

The program leading to the MA degree in criminology and criminal justice offers a comprehensive examination of the criminal justice system, an exploration of criminal and delinquent behaviors, a foundation in research and statistics, and an opportunity to explore other relevant topics of interest to the student.

It is designed for:

1. Pre-professional students who wish to pursue a career in some aspect of criminal justice, or in a related field, and to develop the perspectives and knowledge appropriate to doing so;
2. In-service professionals who wish to enhance and broaden their knowledge in this and related areas of study;
3. Students pre-professional or in-service who wish to pursue further relevant post-graduate studies, whether academic or professional.

To meet these objectives, and to develop a broadly educated student, the program offers both thesis and non-thesis options.

The coursework (non-thesis) option is generally recommended for students who do not intend to pursue doctoral-level studies. It does not require applicants to have prior criminal justice employment and is designed to provide a base of knowledge and skills necessary to enter and/or administer criminal justice related programs.

The non-thesis option requires students to pass a comprehensive examination that covers three areas: criminological theory, research methods & statistics, and an area of specialization that will depend on the student's selected area (law enforcement, courts, or corrections). Students must declare their area by the second semester and must complete 27 hours (including core classes) in order to attempt the examination. Students must be enrolled in the semester in which they take the comprehensive examination.

The examination takes place over a two-day period, with knowledge of research methods and theory tested on the first day and knowledge the specialization area assessed on the second. The comprehensive examination is scheduled once each long semester, once in late October and again in late March.

Students have two opportunities to pass the comprehensive examination. Failure on the second attempt will result in dismissal from the program. If a student first attempts the examination in the Spring Term and fails it, he or she may request to retake it during the summer terms. However, the Examining Committee shall decide whether or not to allow this.

The thesis option is generally recommended for students wishing to pursue further education in professional schools or doctoral level studies. It is designed to prepare students to conduct research in criminology and criminal justice and actively participate in the development of knowledge. Students choosing the thesis option are required to take a six-hour thesis course during the semester in which the thesis is defended. Non-thesis students take two additional courses constituting six credit hours. Students are required to defend their thesis proposal at least one semester prior to defending their final thesis and before submission of materials to IRB.

With the approval of the Graduate Advisor, students may also use their elective hours to concentrate on a particular field of study, such as sociology, political science, corrections, policing, or a multidisciplinary approach to a particular focus, such as administration-or research. Thesis students take 15 hours of elective courses and non-thesis students take 21 hours.

## Admission and Degree Requirements

The MA degree in criminology and criminal justice requires a minimum of 36 semester hours, regardless of the option selected, and includes 15 semester hours of required core coursework.

1. **Core:** CRCJ 5301, CRCJ 5309, CRCJ 5310, CRCJ 5327, and CRCJ 5350. One of the following may be taken in lieu of CRCJ 5309 with the approval of the Graduate Advisor: SOCI 5303, SOCW 5322 or URPA 5302. In lieu of CRCJ 5310, one of the following may be taken: SOCI 5304 or URPA 5342, with the approval of the Graduate Advisor.
2. **Electives:** The number of semester hours available for electives ranges from a minimum of 15 to 21, depending on the option selected (thesis or non-thesis). Ordinarily, elective hours are taken in areas of particular interest to the student, with the advice and approval of the Graduate Advisor.

All candidates for the graduate degree must pass a final comprehensive examination, written, oral, or both written and oral. The scope, content, and form of this examination will be determined by the student's supervising committee.

The criminology and criminal justice graduate program adheres to the following admission criteria.

### Unconditional Admission

In addition to having satisfied the requirements set forth by the UT Arlington Graduate School, as

outlined in the graduate catalog, applicants seeking unconditional admission to the CRCJ graduate program are required to meet the following four criteria:

1. Must have successfully completed a baccalaureate degree in criminology/criminal justice or related discipline.
2. A minimum GPA of 3.0 in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. A minimum of 149 on both verbal and quantitative subtests of the GRE (minimum of 440 on both verbal and quantitative subsets under old scoring system). The GRE is not required of an applicant who satisfies all of the following requirements:
  - Has three or more years of professional experience with increasing responsibility in a criminal justice (or closely related) occupation and provides a detailed work history documenting this experience.
  - Submits an acceptable sample of professional writing authored solely by the applicant. This will be evaluated to assess writing and analytical skills.
  - Successfully completes a personal interview with the graduate advisor, where credentials, goals and objectives of graduate studies, and views related to the study and profession of Criminology/Criminal Justice will be discussed.
4. Must submit three letters of recommendation addressing the applicant's potential for success in the graduate program from persons knowledgeable of the applicant's abilities.

Applicants meeting all four of the criteria will be granted unconditional admission into the CRCJ Graduate Program. Applicants who lack one of the above criteria may be considered for probationary admission.

### Probationary Admission

Applicants who fail to meet the four criteria for unconditional admission may be considered for probationary admission. Applicants who fail to meet the GPA or GRE requirements for unconditional admission may be granted probationary admission if any of the following three conditions is met: (1) the GPA falls between 2.5 and 3.0 and the remainder of the application package is satisfactory; (2) the GPA falls between 2.25 and 2.49, the remainder of the application package is satisfactory, and the applicant has five years of professional experience in a criminal justice (or closely related) occupation and a detailed work history documenting this experience; or (3) the GPA fall between 2.00 and 2.24, the remainder of the application package is satisfactory, and the applicant has 10 or more years of professional experience in a managerial or administrative position within a criminal justice (or closely related) occupation and a detailed work history documenting that experience. In addition to providing a work history, applicants using their work history for admission must also provide a writing sample and complete a personal interview. Applicants admitted on probation will remain in that status until completing 12 hours of graduate coursework with no grade lower than a B.

### Deferred Admission

In the event an applicant does not meet the minimum criteria established for unconditional or probationary admission, yet nonetheless is judged by the graduate advisor, in consultation with the CRCJ Graduate Studies Committee, to show promise, the admission decision may be deferred, with instructions provided to the student indicating the course of action to be taken prior to subsequent review. Admission decisions may also be deferred if the application package is incomplete.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements may be granted provisional admission.

### Denial

Applicants who do not satisfy all of the criteria for any of the above categories will be denied



admission.

## Fellowships

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Graduate School Master's Fellowship in the criminology/criminal justice graduate program will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.
- The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in criminology/criminal justice (or appropriate related field) from an accredited institution.
- Three letters of recommendation (may use the same letters submitted for consideration into the criminology/criminal justice graduate program).
- A written statement explaining the applicant's reasons for graduate study in criminology/criminal justice.

## Dual Degree Program

Students in criminology and criminal justice may participate in one of three dual degree programs whereby they can earn a Master of Arts in Criminology and Criminal Justice and 1) a Master of Science in Social Work, 2) a Master of Arts in Political Science, or 3) a Master of Public Administration. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs.

To participate in the dual degree program, students must be admitted to each program and must submit a separate Program of Work for each degree. Those interested in a dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement on Dual Degree Programs in the general information section of this catalog.

## Objectives

The cohort program leading to the M.A. degree in criminology and criminal justice offers a comprehensive examination of the criminal justice system, an exploration of criminal and delinquent behaviors, a foundation in research and statistics, and an opportunity to explore other relevant topics of interest to the student.

It is designed for:

1. Professionals who wish to enhance and broaden their knowledge in this and related areas of study;
2. Students pre-professional or in-service who wish to pursue further relevant post-graduate studies, whether academic or professional.

To meet these objectives, and to develop a broadly educated student, the program offers a non-thesis option.

The coursework (non-thesis) option is generally recommended for professionals who do not intend to pursue doctoral-level studies. It is designed for individuals who are interested in completing their M.A. degree in criminology and criminal justice in a period of 24 months from the first day of class.

## Admission and Degree Requirements

The M.A. degree in criminology and criminal justice requires 36 semester hours and includes 15

semester hours of required core coursework.

1. **Core:** CRCJ 5301, CRCJ 5309, CRCJ 5310, CRCJ 5327, and CRCJ 5350.
2. **Electives:** The number of semester hours available for electives is 21 total. The emphasis of the elective courses will be placed on organizational management and related areas of concentration.

The criminology and criminal justice graduate program adheres to the following admission criteria.

### Unconditional Admission

In addition to having satisfied the requirements set forth by the UT Arlington Graduate School, as outlined in the Graduate Catalog, applicants seeking unconditional admission to the CRCJ program are required to meet the following four criteria:

1. A baccalaureate degree in criminology/criminal justice or related discipline. Applicants with baccalaureate degrees in other disciplines may be considered for probationary admission).
2. A minimum GPA of 3.0 in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. A minimum of 149 on the verbal and a minimum of 149 on the quantitative subtests of the GRE (minimum of 440 on verbal and 440 on quantitative under the old scoring method). The GRE is not required of an Applicant who satisfies all of the following requirements:
  - Has three or more years of professional experience with increasing responsibility in managerial or administrative positions in a criminal justice (or closely related occupation) occupation and provide a detailed work history documenting this experience.
  - Submits an acceptable sample of professional writing authored solely by the applicant. This will be evaluated to assess writing and analytic skills.
  - Successfully completes a personal interview with the advisor, where credentials, goals and objectives of graduate studies, and views related to the study and profession of Criminology/Criminal Justice will be discussed.
4. Three letters of recommendation, submitted to the program advisor, addressing the applicant's potential for success in the graduate program from persons knowledgeable of the applicant's abilities.

Applicants meeting criteria 1-4 will be considered for unconditional admission into the CRCJ Graduate Program. Applicants who do not meet one of these four criteria may be considered for probationary admission.

### Probationary Admission

Applicants who fail to meet the four criteria for unconditional admission may be considered for probationary admission. Applicants who fail to meet the GPA or GRE requirements for unconditional admission may be granted probationary admission if any of the following three conditions is met: (1) the GPA falls between 2.5 and 3.0 and the remainder of the application package is satisfactory; (2) the GPA falls between 2.25 and 2.49, the remainder of the application package is satisfactory, and the applicant has five years of professional experience in a criminal justice (or closely related) occupation and a detailed work history documenting this experience; or (3) the GPA fall between 2.00 and 2.24, the remainder of the application package is satisfactory, and the applicant has 10 or more years of professional experience in a managerial or administrative position within a criminal justice (or closely related) occupation and a detailed work history documenting that experience. In addition to providing a work history, applicants using work experience for admission must also submit a writing sample and complete a personal interview. Applicants admitted on probation will remain in that status until completing 12 hours of graduate coursework with no grade lower than a B.

### Deferred Admission

In the event an applicant does not meet the minimum criteria established for unconditional or

probationary admission, yet nonetheless is judged by the graduate advisor, in consultation with the CRCJ Graduate Studies Committee, to show promise, the admission decision may be deferred, with instructions provided to the student indicating the course of action to be taken prior to subsequent review. Admission decisions may also be deferred if the application package is incomplete.

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Denial**

Applicants who do not satisfy all of the criteria for any of the above categories will be denied admission.

## **Course Sequence**

### **Fall Semester**

5350 - Theoretical Criminology\*

5301 - Proseminar in Criminology and Criminal Justice\*

### **Spring Semester**

5318 - Criminal Justice Personnel Administration

5319 - Issues in Policing

### **Summer Semester**

5351 - Terrorism and Crime

5353 - Criminal Justice Organizational Theory and Management

### **Fall Semester**

5327 - Judicial and Constitutional Processes\*

5342 - Ethics in Criminal Justice

### **Spring Semester**

5381 - Crime and Public Policy

5380 - Criminal Justice Seminar

### **Summer Semester**

5309 - Research Methods in Criminal Justice\*

5310 - Statistics and Research Practices in Criminal Justice\*

\*Depicts a core course

CRCJ5350 - THEORETICAL CRIMINOLOGY (3 - 0)

Explores the etiology of crime, theory development and crime causation. Emphasis is on theoretical perspectives and policy implementation.

CJ5301 - PROSEMINAR IN CRIMINOLOGY AND CRIMINAL JUSTICE (3 - 0)

An exploration of classical and contemporary literature in criminology and criminal justice. Theoretical perspectives and empirical research will be used to examine criminal behavior and the

structure, function, operation, and interaction of the criminal justice system components as well as current practices and future trends in criminology and criminal justice.

**CRCJ5318 - CRIMINAL JUSTICE PERSONNEL ADMINISTRATION (3 - 0)**

Personnel administration and management in criminal justice agencies and institutions; analyzes functions of recruitment, selection, hiring, placement, evaluation, dismissal, benefits systems, minority recruitment, training, education, promotion, career development, and retirement.

**CRCJ5319 - Issues in Policing (3 - 0)**

In-depth analysis of historical, current, and future issues in policing and police administration. Emphasis will be placed on the role of police in society, police-citizen relationships, and empirical evaluations of police effectiveness, police behavior, and programs and strategies.

**CRCJ5351 - TERRORISM AND CRIME (3 - 0)**

This course examines the origins, nature, and operational characteristics of terrorist groups. Students are exposed to topics ranging from the definition of "terrorism" to the unique characteristics of terrorist cells in the United States and abroad. Particular emphasis is on historical and contemporary terrorist attacks against the United States.

**CRCJ5353 - CRIMINAL JUSTICE ORGANIZATIONAL THEORY & MANAGEMENT THOUGHT (3 - 0)**

An examination of organizational theory with specific application to the operation and management of criminal justice agencies. The historical precedents and emergence of contemporary perspectives are presented with their implication for effective functioning of the criminal justice system.

**CRCJ5327 - JUDICIAL AND CONSTITUTIONAL PROCESSES (3 - 0)**

Examination of the structure, functions, and operations of the courts, with special attention to contemporary constitutional issues and their impact on the criminal justice process.

**CRCJ5342 - ETHICS IN CRIMINAL JUSTICE (3 - 0)**

This course focuses on the ethical decisions and dilemmas encountered in the criminal justice system. Topics covered include criteria for ethical decision-making, professional codes of ethics, and ethical and legal dilemmas faced by criminal justice professionals.

**CRCJ5381 - CRIME & PUBLIC POLICY (3 - 0)**

This course addresses crime and criminal justice policy. Emphasis is on the examination of media and political forces that shape criminal justice responses and policy initiatives. In the context of theoretical paradigms, the impact of race, class, economics, and gender on development of criminal justice public policy is examined.

**CRCJ5380 - CRIMINAL JUSTICE SEMINAR (3 - 0)**

Synthesis course for advanced graduate students. Special emphasis on examination of constructs of crime/criminals, justice and systems. Requires individual research in area of particular concern to student.

**CRCJ5309 - RESEARCH METHODS IN CRIMINAL JUSTICE (3 - 0)**

Examination of research methodology in criminal justice. Special emphasis on methods and techniques for conducting research in criminal justice, including a review of problems encountered in sampling and survey research, field research, public policy implementation, and program evaluation.

**CRCJ5310 - STATISTICS & RESEARCH PRACTICES IN CRIMINAL JUSTICE (3 - 0)**

Advanced methods and techniques of research and research design in criminology and criminal

justice. Course will cover pure and applied research and expose students to contemporary methodological and analytical issues. Students will be instructed on the use of existing CRCJ databases as well as the collection of new data and particular aspects of SPSS (Statistical Package for the Social Sciences software) and advanced data analysis.

## **CRCJ Courses**

### **CRCJ5196 – CONFERENCE COURSE CRJU**

1 Lecture Hour · 0 Lab Hours

### **CRCJ5301 – PROSEMINAR IN CRIMINOLOGY AND CRIMINAL JUSTICE**

3 Lecture Hours · 0 Lab Hours

An exploration of classical and contemporary literature in criminology and criminal justice. Theoretical perspectives and empirical research will be used to examine criminal behavior and the structure, function, operation, and interaction of the criminal justice system components as well as current practices and future trends in criminology and criminal justice.

### **CRCJ5309 – RESEARCH METHODS IN CRIMINAL JUSTICE**

3 Lecture Hours · 0 Lab Hours

Examination of research methodology in criminal justice. Special emphasis on methods and techniques for conducting research in criminal justice, including a review of problems encountered in sampling and survey research, field research, public policy implementation, and program evaluation.

### **CRCJ5310 – STATISTICS & RESEARCH PRACTICES IN CRIMINAL JUSTICE**

3 Lecture Hours · 0 Lab Hours

Advanced methods and techniques of research and research design in criminology and criminal justice. Course will cover pure and applied research and expose students to contemporary methodological and analytical issues. Students will be instructed on the use of existing CRCJ databases as well as the collection of new data and particular aspects of SPSS (Statistical Package for the Social Sciences software) and advanced data analysis. Prerequisite: CRCJ 5309 or equivalent.

### **CRCJ5318 – CRIMINAL JUSTICE PERSONNEL ADMINISTRATION**

3 Lecture Hours · 0 Lab Hours

Personnel administration and management in criminal justice agencies and institutions; analyzes functions of recruitment, selection, hiring, placement, evaluation, dismissal, benefits systems, minority recruitment, training, education, promotion, career development, and retirement.

### **CRCJ5319 – ISSUES IN POLICING**

3 Lecture Hours · 0 Lab Hours

In-depth analysis of historical, current, and future issues in policing and police administration. Emphasis will be placed on the role of police in society, police-citizen relationships, and empirical evaluations of police effectiveness, police behavior, and programs and strategies.

### **CRCJ5327 – JUDICIAL AND CONSTITUTIONAL PROCESSES**

3 Lecture Hours · 0 Lab Hours

Examination of the structure, functions, and operations of the courts, with special attention to contemporary constitutional issues and their impact on the criminal justice process.

### **CRCJ5332 – CORRECTIONAL THEORY AND PRACTICE**

3 Lecture Hours · 0 Lab Hours

Examination of social, psychological, political, and historical bases of interventions in the control and disposition of offenders. Emphasis on contemporary policies, practices, and problems in institutional, semi-institutional, and community-based corrections.

### **CRCJ5342 – ETHICS IN CRIMINAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

This course focuses on the ethical decisions and dilemmas encountered in the criminal justice system. Topics covered include criteria for ethical decision making, professional codes of ethics, and ethical and legal dilemmas faced by criminal justice professionals.

### **CRCJ5350 – THEORETICAL CRIMINOLOGY**

**3** Lecture Hours · **0** Lab Hours

Explores the etiology of crime, theory development and crime causation. Emphasis is on theoretical perspectives and policy implementation.

### **CRCJ5351 – TERRORISM AND CRIME**

**3** Lecture Hours · **0** Lab Hours

This course examines the origins, nature, and operational characteristics of terrorist groups. Students are exposed to topics ranging from the definition of "terrorism" to the unique characteristics of terrorist cells in the United States and abroad. Particular emphasis is on historical and contemporary terrorist attacks against the United States.

### **CRCJ5352 – WOMEN, CRIME & CRIMINAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

A summary of issues related to women as criminal offenders, victims of crime, and professionals in the criminal justice system. The course focuses on crimes women are most likely to commit and/or be processed through the criminal justice system for, the punishment of female offenders, the types of victimizations most often experienced by women, and employment issues unique to women employed in the criminal justice system. While the main emphasis of the course will be on the experiences of women in the U.S., attention will also be given to women on a global scale.

### **CRCJ5353 – CRIMINAL JUSTICE ORGANIZATIONAL THEORY & MANAGEMENT THOUGHT**

**3** Lecture Hours · **0** Lab Hours

An examination of organizational theory with specific application to the operation and management of criminal justice agencies. The historical precedents and emergence of contemporary perspectives are presented with their implication for effective functioning of the criminal justice system.

### **CRCJ5360 – RACE, CRIME JUSTICE & THE LAW**

**3** Lecture Hours · **0** Lab Hours

This course explores the role of race and ethnicity within the juvenile and criminal justice system. Emphasis is on the social construction of crime, racial and ethnic inequalities, the law and policies/practices that impact blacks and other racial minorities.

### **CRCJ5364 – CRIME AND THE MEDIA**

**3** Lecture Hours · **0** Lab Hours

Utilizing a social constructionist perspective, the course examines the mass media's role in engendering and cultivating American society's perception of crime. This course examines factors influencing the social reality of crime, and attempts to deconstruct perceptions of crime-related mass media events.

### **CRCJ5366 – JUVENILE DELINQUENCY AND JUVENILE CORRECTIONS**

**3** Lecture Hours · **0** Lab Hours

Correctional modes are discussed and applied to juvenile offenders. Theoretic approaches to causation,

modification, and control of delinquent behaviors are presented, and policy implications and limitations are discussed. Historical and contemporary perspectives and approaches are presented in the context of evolving and emerging practices and procedures.

### **CRCJ5370 – PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Professional or pre-professional experience in a criminal justice related agency or institution with the approval and direction of the student's supervising professor; intended for non-thesis option students who do not have professional experience related to criminal justice.

### **CRCJ5380 – CRIMINAL JUSTICE SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Synthesis course for advanced graduate students. Special emphasis on examination of constructs of crime/criminals, justice and systems. Requires individual research in area of particular concern to student.

### **CRCJ5381 – CRIME & PUBLIC POLICY**

**3** Lecture Hours · **0** Lab Hours

This course addresses crime and criminal justice policy. Emphasis is on the examination of media and political forces that shape criminal justice responses and policy initiatives. In the context of theoretical paradigms, the impact of race, class, economics, and gender on development of criminal justice public policy is examined.

### **CRCJ5382 – COMPREHENSIVE ISSUES IN CRIME AND JUSTICE**

**3** Lecture Hours · **0** Lab Hours

An advanced course covering a broad array of issues related to criminology, crime, and the justice system. This course is designed to review topics related to the comprehensive examination.

### **CRCJ5393 – TOPICS IN CRIME AND CRIMINOLOGY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as the topic changes.

### **CRCJ5394 – TOPICS IN JUSTICE ISSUES**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as the topic changes.

### **CRCJ5396 – CONFERENCE COURSE IN CRIMINAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

Reading and research in a specialized area of criminal justice under the direction of a member of the graduate faculty.

### **CRCJ5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **CRCJ5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours







# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## English

College of Liberal Arts

### Chair Bruce Krajewski

Web [www.uta.edu/english/](http://www.uta.edu/english/)  
Email [tmorris@uta.edu](mailto:tmorris@uta.edu)  
Phone 817.272.2692  
Fax 817.272.2718

203 Carlisle Hall

---

### Degrees / Certificates

**Master's Degrees**  
English, M.A.

**Doctoral Degrees**  
English, Ph.D.

---

### Graduate Faculty

**Bruce Krajewski**

**Professor**  
**Stacy Alaimo**  
**Timothy Morris**  
**Kenneth Roemer**

**Associate Professor**  
**Luanne Frank**  
**Kevin Gustafson**  
**Desiree Henderson**  
**Penelope Ingram**  
**Neill Matheson**  
**Kevin Porter**  
**Timothy Richardson**  
**Johanna Smith**  
**Jacqueline Stodnick**  
**Amy Tigner**

**Assistant Professor**  
**William Arce**  
**James Warren**  
**Yuejiao Zhang**

---

### Graduate Advisors

**Amy Tigner**

*English, M.A.  
English, Non-Degree Seeking  
English, Ph.D.*

---

**Department Information**

**Courses**

## Department Information

**Objectives**

**Doctoral Program of Study**

**Writing Sample and Recommendations**

**Admissions Requirements**

- [Proposed Admissions Changes Effective August 2014 >>](#)
- [Admission Procedures](#)
- [Criteria for Admission: Master's Program](#)
- [Criteria for Admission: Ph.D. Program](#)
- [Deferred Decision](#)
- [Provisional Admission](#)
- [Probationary Admission](#)
- [Denial](#)
- [Deficiency Courses](#)
- [Fellowships](#)
- [Graduate Teaching Assistantships](#)

**Degree Requirements**

- [Master of Arts](#)
- [Doctor of Philosophy](#)

### Objectives

The Department of English offers a wide variety of graduate courses to meet the needs of students with a diversity of interests and academic backgrounds who wish to enhance their awareness of their literary and cultural environment by additional formal instruction or to increase their professional competence.

The Master of Arts program in English is designed to enable students to learn about, critique, and work in teaching, scholarship, writing, or other fields which value a strong background in language, rhetoric, and the study of culture through texts.

Early in the program each student takes one core course. It serves as an introduction to theory as it is currently used in English scholarship.

Each student plans an individual program of coursework, with the help of the Graduate Advisor and the chair of the students' thesis or exam committee. This program draws on the department's varied courses, which offer students ways to study literature, rhetoric, and criticism, as well as methods of studying culture through texts and traditions of discourse.

The M.A. in English provides a strong grounding in scholarly methods and in theory, making it an ideal preparation for doctoral study in disciplinary or interdisciplinary programs. M.A. graduates in English pursue careers in journalism, educational administration and services, publishing, and many business fields that demand writing and communication skills. The M.A. in English is also useful for prospective or experienced teachers who want both to sharpen their ability to teach literature and writing, and to advance professionally.

## Doctoral Program of Study

The doctoral program in English prepares students at the most advanced stage in the interpretation and composition of texts. The program emphasizes rigorous critical study in the fields of rhetoric, composition, critical theory, cultural studies, pedagogy and literary studies. Rather than offering separate tracks, the program allows the student in consultation with the Graduate Advisor and the student's dissertation committees to design a program of work that best suits their particular scholarly interests and career goals. The combination of a diversity of course offerings, required and elected courses, and the requirement that each student define a focus that reflects his or her intellectual and career interests provides students with the flexibility to adapt to changes in English studies. Specifically, the English doctoral program prepares students for careers in writing, including electronic and technical writing, as well as in teaching in community colleges, small colleges or regional state universities. The department trains students for college-level teaching several ways, but most importantly, by offering graduate courses in the teaching of literature and the teaching of composition. Doctoral students in English present papers at scholarly conferences, publish essays in scholarly journals and participate in other professional activities.

## Writing Sample and Recommendations

In addition to the admission requirements set by the Graduate School, the English Department requires all international students to have speaking, reading, and writing competence in English and all applicants to submit to the Graduate Advisor a sample of their best academic writing. Three letters of recommendation should be sent directly to the Graduate Advisor. At least two of the letters of recommendation should be academic in nature.

## Admissions Requirements

### Admission Procedures

For both the M.A. and the Ph.D., we consider four different admission criteria: 1) GPA; 2) GRE; 3) writing sample; and 4) letters of recommendation. Prospective students should submit all the required materials and scores i.e. official transcripts, GRE scores, a writing sample, and recommendation letters in order for their application to be processed. All criteria are considered together, in a holistic way. No single factor will eliminate a prospective student from consideration. For unconditional admission, candidates must meet the following standards for at least three of the four criteria.

### Criteria for Admission: Master's Program

1. A minimum GPA of 3.0 in undergraduate work, with a minimum of 3.4 in the English major or upper-level English courses.
2. GRE scores: a minimum of 500 on the old verbal scale or at least 153 on the new verbal scale and a score of 4.5 on analytic writing. We will not consider the math scores. We do not require the English subject test.
3. A writing sample of 10 to 15 pages that demonstrates a sophisticated prose style and the ability to construct complex arguments.
4. Three letters of recommendation that attest to the prospective student's intellectual and scholarly potential. At least two of these should be from former professors.

## Criteria for Admission: Ph.D. Program

1. A minimum GPA of 3.5 in the student's M.A. in English or a very closely related field. (If the M.A. is not in English, we will consider the undergraduate GPA as well as that of the M.A. Moreover, if the M.A. is not in a very closely related field, the prospective student will be admitted to the M.A. program in English, not the Ph.D.)
2. GRE scores: GRE scores: a minimum of 550 on the old verbal scale or at least 156 on the new verbal scale and a score of 4.5 on analytic writing. We will not consider the math scores. We do not require the English subject test.
3. A writing sample of 15 to 20 pages that demonstrates a sophisticated prose style, the ability to engage in intellectually rigorous modes of analysis, and a strong knowledge of rhetoric, composition studies, literary studies, cultural studies, or interdisciplinary critical theory.
4. Letters of recommendation that attest to the student's intellectual and scholarly potential. At least two of these must be from former professors; at least one must be a professor from the student's Master's program.

## Deferred Decision

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

## Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

## Probationary Admission

For both M.A. and Ph.D., students may be admitted on probation under two different scenarios: 1) if the prospective student's application materials do not meet two of the four standards, but are outstanding in the remaining two categories; or 2) if the prospective student's materials come extremely close to meeting the standards in at least three of the four areas. Students on academic probation must make no grade lower than a "B" in the first 12 hours of their graduate work in order to remain in the program.

## Denial

Admission will be denied if the application materials 1) do not meet the standards in three of the four categories; or 2) if the materials do not meet the standards in two of the categories, and in the remaining two categories meet the standards but in an unexceptional manner.

## Deficiency Courses

Students who wish to pursue the Master's degree but who do not have an undergraduate major in English will probably be required to take between 3 and 12 hours in specified advanced undergraduate courses and make no grade lower than a "B." These courses will not be counted for graduate credit, but instead will provide the necessary background for pursuit of the graduate degree.

## Fellowships

The same four criteria used to determine admission to the M.A. or Ph.D. programs will be considered when awarding graduate fellowships.

The Graduate School stipulates that: "Fellowships, when available, will be awarded on a competitive basis based on the following criteria: Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships. The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School."

## Graduate Teaching Assistantships

Please consult the Director of First Year English, for more information on Graduate Teaching Assistantships.

## Degree Requirements

### Master of Arts

1. The program has thesis and non-thesis options.
2. 5300: Theory and Practice in English Studies is required. It must be taken within a student's first 12 hours of study.
3. The thesis option is a 30 credit-hour program and requires 24 hours of coursework (a three credit-hour core course and 21 hours of electives) and at least six hours of thesis. The degree culminates with the defense of thesis.
4. Students must apply for the thesis option during their 24th hour of coursework. A student who elects to write a thesis must select a topic in consultation with his/her thesis director. Before the student registers for thesis hours, a Thesis Committee (a director and two readers) must be established.
5. The non-thesis option requires a 36 credit-hour program of coursework (a three credit-hour core course and 33 hours of electives) and a comprehensive examination on coursework.

### Doctor of Philosophy

1. The Ph.D. requires thirty semester hours of coursework beyond the M.A., followed by a minimum of 9 hours of dissertation work.
2. 5300: Theory and Practice in English Studies is required. It must be taken within a student's first 12 hours of study unless they have already taken 5300 while in the M.A. program and received a grade of B or higher.
3. All students are also required to take 5311: Foundation of Rhetoric OR 5359: Argumentation Theory as early in their programs as possible.
4. Students are allowed to take 9 hours of coursework outside the English department.
5. The Ph.D. track in English requires basic proficiency in translation in one natural language other than English.

Students must consult with the Graduate Advisor and the chair of their dissertation committee to carefully construct a coherent focus for their coursework and comprehensive examinations. After completing coursework and satisfying the foreign language requirement, students will take a written comprehensive examination. While studying for the comprehensive exams, students may enroll in English 6391: Graduate Readings, supervised reading for the Ph.D. exam, graded R. By the end of the first semester after successfully completing the comprehensive examinations, the students must submit a dissertation prospectus to their committee. The dissertation must be an original, substantial and significant contribution to a scholarly field. Students should work closely with the chair of their committee while researching and writing their dissertation. While researching and writing their dissertation, students must enroll in dissertation hours (ENGL 6399, 6699 or 6999). In the final semester of dissertation work, students must enroll in ENGL 7399. Once the student, the chair of the committee, and the primary readers agree that the dissertation is sufficiently completed, the student may schedule the defense. The student must furnish each committee member with a copy of the dissertation, including notes and bibliography, at least three weeks prior to the defense date. The defense of the dissertation is oral. The defense is open to all members of the faculty, graduate students and invited guests of the university community. Questioning of the candidate will be directed by the student's dissertation supervising committee, but any person attending the defense may participate. Committee members may request that the dissertation be further revised and may withhold final approval of the dissertation until the revisions have been made. For more specific information regarding degree requirements, please consult the Graduate Handbook of the Department of English.

## **ENGL Courses**

### **ENGL5191 – INDEPENDENT STUDY**

1 Lecture Hour · 0 Lab Hours

Supervised independent study at the M.A. or Ph.D. level.

### **ENGL5300 – THEORY AND PRACTICE IN ENGLISH STUDIES**

3 Lecture Hours · 0 Lab Hours

Core graduate course, introduction to graduate study in English. Covers a wide range of methodological and theoretical approaches to, as well as current issues in, criticism, rhetoric, and literary studies. Enrollment requires the approval of the Graduate Advisor in English.

### **ENGL5301 – MEDIEVAL ENGLISH LITERATURE**

3 Lecture Hours · 0 Lab Hours

English literature of the period before 1500. May include Old English poetry, Anglo-Latin prose, William Langland, the alliterative revival, romances, Malory, and Chaucer.

### **ENGL5302 – 16TH CENTURY BRITISH LITERATURE**

3 Lecture Hours · 0 Lab Hours

Non-dramatic literature of the 16th century, including works by Thomas More, Sir Philip Sidney, Sir Walter Raleigh, John Skelton, Edmund Spenser, and Elizabeth I.

### **ENGL5303 – 17TH CENTURY ENGLISH LITERATURE**

3 Lecture Hours · 0 Lab Hours

Poetry and prose of the 17th Century. May include a study of Milton and/or a study of writers and motifs of the period.

### **ENGL5304 – RESTORATION AND 18TH CENTURY BRITISH LITERATURE**

3 Lecture Hours · 0 Lab Hours

Drama, poetry, fiction, and essays from 1660 to 1798. Includes writers such as John Dryden, Aphra Behn, Alexander Pope, Samuel Johnson, Henry Mackenzie, Ignatio Sancho, and Maria Edgeworth, as well as issues of the period such as the nature of reason.

### **ENGL5305 – ROMANTIC BRITISH LITERATURE**

3 Lecture Hours · 0 Lab Hours

Poetry and fiction from 1798 to 1837. Includes writers such as William and Dorothy Wordsworth, Mary and Percy Shelley, Felicia Hemans, and Walter Scott, as well as issues such as the meaning of nature.

### **ENGL5306 – VICTORIAN ENGLISH LITERATURE**

3 Lecture Hours · 0 Lab Hours

Concepts and problems in texts by Victorian novelists, poets, and essayists (writers will vary). Attention to historical and cultural as well as literary issues.

### **ENGL5307 – 19TH CENTURY BRITISH LITERATURE AND CULTURE**

3 Lecture Hours · 0 Lab Hours

An overview of the writings and culture of the long 19th century in Britain from 1798 to 1914. Makes connections between Romantic and Victorian periods, covers literary and other relations with the empire, and includes significant non-literary figures such as Darwin and Freud.

### **ENGL5308 – SHAKESPEARE**

**3** Lecture Hours · **0** Lab Hours

Representative works of Shakespeare. May vary from comprehensive readings in the dramatic literature to intensive examination of certain plays, or to other related topics.

### **ENGL5311 – FOUNDATIONS OF RHETORIC AND COMPOSITION**

**3** Lecture Hours · **0** Lab Hours

An intellectual and institutional history of rhetoric and composition studies. Special attention will be given to the history and ethics of writing instruction; the importation of classical rhetoric into contemporary composition classrooms; the institutional formation of the field and its ambiguous status in the academy; and the major contemporary pedagogical approaches (e.g., expressivism, cognitivism, social constructionism). May also address recent topics that have attracted the attention of the field (e.g., dialogism, institutional critique, plagiarism, post-process theory, service learning, writing across and beyond the curriculum).

### **ENGL5313 – 20TH CENTURY BRITISH LITERATURE**

**3** Lecture Hours · **0** Lab Hours

A study of English and Irish writing in the 20th Century; may focus on major authors, themes, or topics.

### **ENGL5320 – SELECTED READINGS IN AMERICAN LITERATURE BEFORE 1800**

**3** Lecture Hours · **0** Lab Hours

Designed to establish the diversity of our early literature. Includes Indian oral literature, travel accounts, Puritan writing, diaries, autobiography, poetry, drama and fiction. Cultural context stressed.

### **ENGL5322 – 19TH CENTURY AMERICAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Examines significant authors, forms, and aesthetic movements within literary, historical, and cultural contexts. Writers examined may include established figures associated with traditionally recognized forms, movements, and eras, such as Romanticism, the domestic novel, the American Literary Renaissance, slave narratives, Realism, and Naturalism, as well as non-canonical authors and less-recognized forms and movements.

### **ENGL5323 – AMERICAN LITERATURE SINCE 1900**

**3** Lecture Hours · **0** Lab Hours

Includes representative works of multiple authors selected for the study of modern and contemporary themes and methods.

### **ENGL5324 – TOPICS IN AMERICAN LITERARY GENRES**

**3** Lecture Hours · **0** Lab Hours

Concentrates on the nature and aesthetic-cultural significance of one literary genre. Genres examined may include, but are not limited to, poetry, drama, fiction, autobiography, travel literature, and oral narratives. May be repeated when content changes.

### **ENGL5326 – TOPICS IN AMERICAN LITERATURE BEFORE 1900**

**3** Lecture Hours · **0** Lab Hours

May focus on one to three writers such as Melville, Hawthorne, or Emerson, or a significant theme or movement such as the rise of Realism, the representation of women, or women's fiction. May be repeated when content changes.

### **ENGL5327 – TOPICS IN 20TH CENTURY AMERICAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours



May focus on one to three writers such as Faulkner, O'Neill, or Morrison, or a significant theme or movement such as Modernism and Postmodernism, multicultural narrative, or feminist theory/feminist fiction. May be repeated when content changes.

### **ENGL5330 – TOPICS IN CRITICISM**

**3** Lecture Hours · **0** Lab Hours

Studies in critical topics such as textual criticism, psychoanalytic criticism, philosophy and criticism, Renaissance poetics and literature, critical movements, or focus on a major theorist in criticism. May be repeated when content changes.

### **ENGL5331 – TOPICS IN LANGUAGE OR DISCOURSE STUDIES**

**3** Lecture Hours · **0** Lab Hours

Concentration on historical and theoretical approaches to the study of language and the specific discursive practices of its users. May be repeated for credit when content changes.

### **ENGL5337 – SEMINAR IN TEACHING LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Study of recent scholarship in English Studies and other disciplines pertaining to the teaching of literature. Comparative analysis of methods and objectives for the teaching of literature. Course will include a practicum component in which students observe the teaching of experienced faculty, teach particular texts, design syllabi and write statements of teaching philosophy. The course is intended to prepare graduate students to teach literature courses at the university, college or community college level, and to provide a range of pedagogical models to enhance the skills of secondary school teachers.

### **ENGL5340 – CRITICAL THEORY: THE MAJOR TRADITIONAL TEXTS**

**3** Lecture Hours · **0** Lab Hours

A study of literary and cultural theory and practice from the Greco-Roman period to the early 20th Century. May include such theorists as Plato, Aristotle, Horace, Longinus, Dante, Sidney, B. Jonson, Dryden, Pope, Johnson, Coleridge, Arnold, Richards, Eliot, and others.

### **ENGL5350 – HISTORY OF RHETORIC I: CLASSICAL RHETORIC**

**3** Lecture Hours · **0** Lab Hours

A study of the theory and practice of Greco-Roman rhetoric from its pre-Socratic origins to the Second Sophistic. Attention will be given to major theorists, such as Gorgias, Protagoras, Plato, Aristotle, Isocrates, Hermagoras, Hermogenes, Cicero, Quintilian and the transitional figure of St. Augustine.

### **ENGL5351 – HISTORY OF RHETORIC II: MEDIEVAL AND RENAISSANCE RHETORIC**

**3** Lecture Hours · **0** Lab Hours

A study of the theory and practice of western rhetoric from the early medieval period through the Renaissance. Attention will be given to major theorists, such as St. Augustine, Geoffrey of Vinsauf, Robert of Basevorn, Christine de Pizan, Desiderius Erasmus, Baldesar Castiglione, Juan Luis Vives, Sir Philip Sidney, Peter Ramus and Francis Bacon.

### **ENGL5352 – HISTORY OF RHETORIC III: MODERN AND CONTEMPORARY RHETORIC**

**3** Lecture Hours · **0** Lab Hours

A study of the theory and practice of western rhetoric from the 18th century to the present. Attention will be given to major theorists, such as Whatley, Blair, Bain, Campbell, Spencer, Richards, Burke, Weaver, Toulmin, Perelman, Bitzer, Vatz, Harriman, Leff, Farrell, McGee, Gaonkar, Kinneavy, Scott, Crosswhite, Meyer, Gross, Miller, Fuller and Kent.

### **ENGL5355 – STUDIES IN ENGLISH DISCOURSE**

**3** Lecture Hours · **0** Lab Hours



Analysis of English grammatical structures above the level of the clause, including the sentence, the paragraph, and the whole text; examination of the work of major discourse theorists Dik, Harris, Halliday, Longacre, Pike and van Dijk.

### **ENGL5356 – COMPOSING PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Study of research about writing processes and examination of the available methods of conducting research; special attention given to major researchers and theorists.

### **ENGL5357 – READING PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Contemporary theories of interpretation and empirical research into reading processes; special attention given to major researchers and theorists.

### **ENGL5358 – WRITING ASSESSMENT, EVALUATION, AND RESPONSE**

**3** Lecture Hours · **0** Lab Hours

Study of the methods and ethics of assessing, evaluating, and responding to the writing of students individually or collectively.

### **ENGL5359 – ARGUMENTATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Emphasis on theories of argumentation and persuasion that further the rhetorical aims of convincing or achieving agreement through identification and consensus. Attention to classical and contemporary approaches to issue analysis, invention, audience analysis, building common ground, stasis theory, types of proofs and tests of validity, organizational strategies, and style. Special attention to argument on the Internet. Assignments may include constructing Web sites related to argument. Study of such theorists as Aristotle, Perelman, Toulmin, Ong, K. Burke, Brockreide and Ehninger, Bitzer, Young, Becker and Pike, and others.

### **ENGL5360 – CONTEMPORARY CRITICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

Study of contemporary theories of interpretation, concentrating on one or more schools of critical and cultural theory may include, New Criticism, the Neo-Aristotelians, Marxist Critical Theory, Hermeneutics, psychoanalysis, Russian Formalism, semiotics, speech-act theory, phenomenology, structuralism, and post-structuralism. May be repeated when content changes.

### **ENGL5370 – SCHOLARLY ARGUMENT**

**3** Lecture Hours · **0** Lab Hours

An introduction to the research for the writing of argumentative scholarly essays. Surveys research skills, materials, forms of scholarly argument, and involves the writing of a research-based essay.

### **ENGL5380 – TEXTUAL THEORIES OF CULTURE**

**3** Lecture Hours · **0** Lab Hours

Study of the interpretations of culture yielded by the traditions of semiotics and hermeneutics and cultural studies may include works by the following: Lyotard, Foucault, Habermas, Derrida, Pierce, Barthes, Deleuze, Gadamer, Levi-Strauss, Butler, Haraway, and Hall.

### **ENGL5388 – GTA PREPARATION**

**3** Lecture Hours · **0** Lab Hours

### **ENGL5389 – TOPICS IN TEACHING COMPOSITION**

**3 Lecture Hours · 0 Lab Hours**

Seminar for investigating problems of and approaches to teaching composition. Special attention given to current compositional theorists. May be repeated when content changes.

### **ENGL5391 – INDEPENDENT STUDY**

**3 Lecture Hours · 0 Lab Hours**

Supervised independent study at the M.A. or Ph.D. level.

### **ENGL5398 – THESIS**

**3 Lecture Hours · 0 Lab Hours**

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee, and (b) in the semester or term in which the Master of Arts degree will be conferred.

### **ENGL5698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee, and (b) in the semester or term in which the Master of Arts degree will be conferred.

### **ENGL5998 – THESIS**

**9 Lecture Hours · 0 Lab Hours**

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee, and (b) in the semester or term in which the Master of Arts degree will be conferred.

### **ENGL6191 – INDEPENDENT STUDY**

**1 Lecture Hour · 0 Lab Hours**

Independent study at the M.A. or Ph.D. level. May be repeated as needed. Prerequisite: permission of instructor.

### **ENGL6329 – TOPICS AND THEMES IN COMPARATIVE LITERATURE**

**3 Lecture Hours · 0 Lab Hours**

The study of a theme or topic, such as primitivism, utopianism, representations of the unconscious, or the quest, within different literary traditions. May be repeated as content changes.

### **ENGL6330 – GENRE STUDIES IN BRITISH LITERATURE**

**3 Lecture Hours · 0 Lab Hours**

Intensive study of a genre in any period(s) of British Literature; may focus on autobiography, history of the novel, Restoration and eighteenth-century drama, nineteenth-century British fiction, or other. May be repeated when course content changes.

### **ENGL6333 – GENRES IN COMPARATIVE LITERATURE**

**3 Lecture Hours · 0 Lab Hours**

Theory of literary forms or types and the conventions they embody. May focus on the epic, the novel, lyric poetry, autobiography, drama, or magical realism, across different literary traditions. May be repeated as course content changes.

### **ENGL6335 – TOPICS IN ENGLISH LITERATURE**

**3 Lecture Hours · 0 Lab Hours**

Focus on writers or issues in literature written in English, including colonial and postcolonial literatures. May include poetry, drama, fiction, or non-fiction. May be repeated when content changes.

### **ENGL6339 – TOPICS IN AMERICAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Themes or issues not bound by particular historical periods, for example, women writers, canon formation, American Indian literature, African-American literature, utopian literature, cultural studies. May be repeated when content changes.

### **ENGL6340 – METACRITICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A study of theories of literature from the point of view of their systems-theoretical character. Focuses on the writing of selected metatheorists such as Barbour, Braithwaite, Bruss, Harr, Lakotos, Popper, Rescher, and others, on questions of the genesis, nature, function, validity, and potential of literary theory.

### **ENGL6350 – TOPICS IN THE HISTORY AND THEORY OF RHETORIC**

**3** Lecture Hours · **0** Lab Hours

An intensive study of specific problems or issues in classical, medieval, Renaissance, modern, or contemporary rhetoric, (e.g., civic functions of rhetoric, logic and rhetoric, rhetoric of science, theories of invention), especially those that involve the connections and collisions between rhetoric and other intellectual traditions (e.g., critical theory, cultural studies, feminist theory, history, literary studies, non-western rhetoric, philosophy). May focus on the work of a major theorist. May be repeated for credit when content changes.

### **ENGL6351 – TOPICS IN COMPOSITION STUDIES**

**3** Lecture Hours · **0** Lab Hours

An intensive study of specific problems or issues in contemporary composition studies (e.g., authorship and intellectual property, computers and composition, the ideologies of writing instruction, the role of empirical research, service learning), especially those that involve connections and collisions between composition studies and other intellectual traditions (e.g., cognitive science, critical theory, cultural studies, feminist theory, hermeneutics, history, linguistics, literary study, rhetoric, philosophy, psychology, sociology). May focus on the work of a major researcher or theorist. May be repeated for credit when content changes.

### **ENGL6360 – TOPICS IN FEMINIST THEORY**

**3** Lecture Hours · **0** Lab Hours

Study of interdisciplinary feminist theories of language, power, knowledge, and culture. Course may focus on Marxist feminism, postmodern feminism, feminist cultural studies, or other topics. Course may include such theorists as Wollstonecraft, Woolf, Beauvoir, Irigaray, Spillers, Anzaldua, Haraway, Butler, or Cornell.

### **ENGL6370 – TOPICS IN LITERATURE AND THE ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Introduces interdisciplinary theories and methods of the environmental humanities, in order to investigate how texts and other cultural practices represent and engage with the natural world. Topics may include environmental theories, nature writing, animal studies, environmental literature, film, science studies, environmental justice, posthumanism, green cultural studies. May be repeated for credit when course changes.

### **ENGL6391 – GRADUATE READINGS**

**3** Lecture Hours · **0** Lab Hours

Supervised reading for the Ph.D. exam.

### **ENGL6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the dissertation with the supervisory committee, and (b) in the semester or term in which the Ph.D. will be conferred. A minimum of 9 hours of dissertation credit is required for the Ph.D. Graduate teaching assistants must take 6699. 6999 must be taken during the final semester of the Ph.D.

### **ENGL6691 – GRADUATE READINGS**

**6** Lecture Hours · **0** Lab Hours

Independent Reading for the Comprehensive Exam.

### **ENGL6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the dissertation with the supervisory committee, and (b) in the semester or term in which the Ph.D. will be conferred. A minimum of 9 hours of dissertation credit is required for the Ph.D. Graduate teaching assistants must take 6699. 6999 must be taken during the final semester of the Ph.D.

### **ENGL6991 – GRADUATE READINGS**

**9** Lecture Hours · **0** Lab Hours

Independent Reading for the Comprehensive Examination.

### **ENGL6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the dissertation with the supervisory committee, and (b) in the semester or term in which the Ph.D. will be conferred. A minimum of 9 hours of dissertation credit is required for the Ph.D. Graduate teaching assistants must take 6699. 6999 must be taken during the final semester of the Ph.D.

### **ENGL7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## History

College of Liberal Arts

**Chair William Dulaney**

**Chair Scott Palmer**

Web [www.uta.edu/history/](http://www.uta.edu/history/)  
 Email [history@uta.edu](mailto:history@uta.edu)  
 Phone 817.272.2861  
 Fax 817.272.2852

**201 University Hall**

### Degrees / Certificates

**Master's Degrees**

History, M.A.

**Doctoral Degrees**

Transatlantic History, B.A. to Ph.D.  
 Transatlantic History, Ph.D.

**Certificates**

Archival Administration Certificate

### Graduate Faculty

**Paul Conrad**  
**David Lafevor**  
**Scott Palmer**

**Professor**

**Thomas Adam**  
**Imre Demhardt**  
**Robert Fairbanks**  
**Sam Haynes**  
**Donald Kyle**  
**Christopher Morris**  
**Stanley Palmer**  
**Jerry Rodnitzky**

**Associate Professor**

**Elisabeth Cawthon**  
**Stephanie Cole**  
**William Dulaney**  
**John Garrigus**  
**Joyce Goldberg**  
**Alusine Jalloh**  
**Stephen Maizlish**  
**David Narrett**

[Steven Reinhardt](#)  
[Gerald Saxon](#)  
[Roberto Trevino](#)

**Assistant Professor**  
[Patryk Babiracki](#)  
[Oliver Bateman](#)  
[Sarah Rose](#)  
[Cristina Salinas](#)  
[Kenyon Zimmer](#)

**Professor Emeritus**  
[George Green](#)  
[Kenneth Philp](#)  
[Douglas Richmond](#)

---

## Graduate Advisors

[Stephanie Cole](#)  
*History, M.A.*

[John Garrigus](#)  
*Transatlantic History, Ph.D.*

[Kenyon Zimmer](#)  
*Transatlantic History, B.A. to Ph.D.*  
*Transatlantic History, Ph.D.*

---

## Department Information

### Courses

# Department Information

## Objectives

### Admission Standards

- [M.A. Program](#)
- [Ph.D. Program](#)

### M.A. Degree Requirements

### Archival Administration and Public History

### Master of Education in Teaching (M.Ed.T.)

### Ph.D. Degree Requirements

### Diagnostic Evaluation

### Language Requirement

### Comprehensive Exam

### Dissertation Guidelines

## Objectives

Graduate study in history seeks not only to train students in historical methods and analysis but also to nurture in them a sense of the excitement and relevance of studying the past. Exploring the historical diversity of human experience broadens and deepens our understanding of both the past and the contemporary world. Students who complete graduate studies in history pursue careers in teaching, research and archival or museum administration, as well as in government and business.

The Master's Degree Program offers students graduate history training in either U.S. history or the history of Europe, Africa and Latin America. In the flexible Master's degree curriculum, apart from two required courses early in the program, students tailor their course of study to meet individual interests and career objectives. Students choose either Thesis or Non-Thesis programs. Coursework and internships in Archival Administration certification and/or Public History are also available as part of the Master's degree program.

The Doctoral Degree Program in Transatlantic History offers students comparative study of the historical development of peoples on the continents bordering the Atlantic Ocean. This exciting Ph.D. program is part of recent developments within the discipline of history that broaden the study of the past, transcend national histories, and contribute to a new transnational and comparative perspective. Utilizing specific research resources in the UT Arlington Libraries, the Ph.D. program in Transatlantic History (1492 to the present) offers a structured and focused curriculum of both required and elective courses. Prerequisite: B.A. or M.A. degree in history.

## Admission Standards

In compliance with HB 1641, the History Department does not assign a specific weight to any one factor being considered, and does not use standardized tests (i.e., the GRE) in the admissions or competitive fellowship or scholarship process as the sole criterion for consideration or as the primary criterion to end consideration of an applicant to either the M.A. or Ph.D. program. However, the GRE is required and used as a criterion, without specific weight, in the Department's evaluation of candidates for admission to programs at each of three levels: Unconditional, Provisional, and Probationary Admission.

The Department wishes to be as thorough and fair as possible in evaluating applicants for admission. It recognizes that some applicants may appear to be stronger according to some criteria than according to other criteria. When an applicant does not completely meet the minimum expectations for Unconditional Admission, the Department may consider the applicant for possible Provisional or Probationary Admission. When the applicant is not granted any of the three levels of admission, the decision may be deferred or the application is denied. We do not wish to exclude a qualified and potentially successful candidate who perhaps has approached but not met all the criteria completely. However, we do not wish to admit candidates who, based on the criteria, are deemed to have a poor chance of successfully completing the graduate program.

## M.A. Program

### Unconditional Admission

The criteria for admission below are used, without specific weights, as positive indicators of potential success in the program. In all but the most exceptional cases, all four criteria for unconditional admission must be met in order to receive unconditional admission.

- Undergraduate GPA of 3.0 (as calculated by the Graduate School) in the last 60 credit hours in the course of completing a B.A. degree in History (or an appropriate other field) from an accredited institution (verified by official transcripts from each college or university previously attended sent directly from the registrar of that institution to Graduate Admissions).
- A writing sample, sent to the Graduate Advisor. The Department prefers that applicants send a research paper written in an upper-division history course, but other examples are acceptable. The essay should demonstrate the applicant's writing, research, and analytical skills where possible. There is not a specific page minimum, but papers should not be over 25 pages.
- Three letters of recommendation (from faculty if possible) mailed directly from the



recommenders to the History Graduate Advisor.

- A minimum score of 153 on the verbal section and a minimum score of 4 on the analytical writing section of the GRE aptitude test (verified by official GRE scores sent to Graduate Admissions). However, standardized test performance is not the sole criterion for admission or the primary criterion to end consideration for admission.

### **Provisional Admission**

An applicant unable to supply all required documentation (e.g. GRE scores have not yet arrived) prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisionally admitted students must adequately satisfy any incomplete documentation by the end of the semester in which they are admitted. If the applicant fails to do so, the Department may then reclassify the applicant as Probationary, defer the decision, or ask the candidate to leave the program.

### **Probationary Admission**

An applicant whose performance, according to the criteria, approximates but does not meet minimum admission standards may be granted Probationary Admission subject to one or both of the following conditions:

- The candidate must earn no grade lower than a B in his/her first 12 semester hours of graduate work taken at UT Arlington.
- Candidates without adequate appropriate preparation in the discipline of History may be required to complete a certain number of "leveling" courses (i.e. make-up coursework) while in the program.

### **Deferral or Denial**

If two or more of the criteria have not been met satisfactorily, the applicant will not be admitted on any of the three levels above but will receive deferral or denial. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **M.A. Fellowship Standards**

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Enhanced Graduate Teaching Assistantship will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, and must maintain full-time status (9 hours of enrollment) in both long semesters to retain their EGTA.
- The minimum undergraduate GPA requirement is 3.0, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours. (Exceptional cases will be considered.)
- Transcript of a completed bachelor's degree in History (or appropriate related field) from an accredited institution.
- Three letters of recommendation (from faculty if possible).
- A writing sample demonstrating candidate's research, writing, and analytical skills, of not less than 8 or more than 25 pages.

## **Ph.D. Program**

### **Unconditional Admission**

The criteria for admission below are used, without specific weight, as positive indicators of potential success in the program. All criteria must be met in order to receive consideration for unconditional admission.

- A prior academic degree (B.A. in History or related fields) from an accredited institution (verified by transcripts from each college or university previously attended sent directly from the registrar of that institution to Graduate Admissions). We will also consider students who already acquired an MA degree in history understanding that they might be asked to complete leveling work.



- A minimum undergraduate GPA of 3.0 in the course of completing a B.A. degree in History or a related field from an accredited institution (verified by official transcripts from each college or university previously attended sent directly from the registrar of that institution to Graduate Admissions).
- An academic writing sample (e.g. research essay) from a previous course assignment.
- Three letters of recommendation (from university or college professors) mailed directly from the recommenders to the History Ph.D. Advisor.
- A minimum score of 550 on the verbal section and a minimum score of 5 on the analytical writing section of the GRE aptitude test (verified by official GRE scores sent to Graduate Admissions) is preferred but standardized test performance is not the sole criterion for admission or the primary criterion to end consideration for admission.

### **Provisional Admission**

An applicant unable to supply all required documentation (e.g., GRE scores) prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisionally admitted students must adequately satisfy any incomplete documentation by the end of the semester in which they are admitted. If the applicant fails to do so, the student will be dropped from the program. He or she may seek readmission when provisional requirements are complete.

### **Probationary Admission**

An applicant whose credentials approximate but do not meet minimum admission standards, may be granted Probationary Admission subject to the condition that the candidate must earn no grade lower than a B in his/her first 12 semester hours of graduate work taken at UT Arlington.

### **Deferral or Denial**

If two or more of the criteria have not been met satisfactorily, the applicant will not be admitted on any of the three levels above but will receive deferral or denial. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Application Deadline**

The Ph.D. admissions committee will begin its evaluation of completed applications on January 15 and will continue to meet periodically until the Graduate School deadline of June 15. Decisions concerning fellowships and assistantships will be made beginning March 15 and will continue thereafter depending on availability.

### **Ph.D. Fellowship Standards**

Fellowships, when available, will be awarded on a competitive basis. The criteria for Liberal Arts Special (Transatlantic) Doctoral Fellowships in History are:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.
- Undergraduate GPA of 3.25 for the last 60 undergraduate hours from an accredited institution.
- Three letters of recommendation (from faculty if possible)
- An academic writing sample (e.g. research essay, thesis chapter) from a previous undergraduate course assignment.

### **M.A. Degree Requirements**

Courses taken toward a master's degree should fit into a unified program aimed at providing students with both a comprehensive background and a depth of understanding in a major field in either U.S. History or the History of Europe, Africa and Latin America. All students are required to take HIST 5339 Historical Theory and Methodology and the Issues & Interpretations course corresponding to their major field (either HIST 5340 or 5341). All students must take a minimum of

six hours in both the Colloquium and the Seminar courses. Master's students are eligible to take courses at the 6000 level as well as 5000 level, subject to any particular course prerequisites. Students must consult with the Graduate Advisor to determine their program.

Competency in one foreign language is required to obtain the Master's degree. This may be demonstrated by four semesters of credit in an approved language or by successful completion of an examination administered by the Department of Foreign Languages or by the History Department.

The Thesis degree plan is designed for students who wish to research and write a substantial, original work on a historical topic of personal interest. The plan requires completion of 30 credit hours (24 hours of coursework, plus 6 hours of thesis preparation). With the approval of the Graduate Advisor, thesis students may have a minor of as many as six hours of graduate and/or advanced undergraduate courses in a discipline other than history. A maximum of six hours of advanced undergraduate history coursework may be taken for graduate credit. Thesis candidates should consult with the Graduate Advisor to form their thesis faculty committee, which consists of one supervising professor and two other professors.

The Non-Thesis degree plan requires completion of 36 credit hours of coursework. With the approval of the Graduate Advisor, non-thesis students may have a minor of as many as nine hours of graduate and/or advanced undergraduate courses in a discipline other than history. A maximum of nine hours of advanced undergraduate coursework may be taken for graduate credit. In the final semester, the non-thesis students are required to form a nonthesis faculty committee in consultation with the Graduate Advisor, consisting of three members of the graduate faculty. The student must submit to this committee a portfolio containing their seminar paper(s) and a selection of three papers that required an analysis of historiography. After reviewing the portfolio, the committee will devise a new assignment for the student to complete based on its determination of what best fits the needs of the student, keeping in mind that the assignment will constitute less than the equivalent of 3 credit hours of course work. The student will complete the assignment during his/her final semester and turn it into the faculty committee, where it must receive an evaluation of "adequate" or better. The committee will meet the student for a final oral exam, in which the student discusses his/her project.

## **Archival Administration and Public History**

These studies involve application of historical knowledge and methodology in non-academic settings such as private businesses or public historical agencies (e.g., archives, museums, preservation societies).

Students desiring a certificate of archival administration as part of the Master of Arts in History degree must take HIST 5339 and HIST 5340 or HIST 5341 and HIST 5395, and enroll in 15 hours of other courses in either U.S. history or the history of Europe, Africa and Latin America. In addition, they must take HIST 5342 and HIST 5343, plus an additional six hours of internship, HIST 5644. Students already holding a M.A. or Ph.D. degree in history or a related field, as well as students enrolled in graduate programs other than history, who desire only a certificate in archival administration should consult the Graduate Advisor.

Students desiring public history as an area of study as part of the Master of Arts in History degree must take HIST 5339, HIST 5340 or HIST 5341, and HIST 5395, and also enroll in 9 hours of content courses in either U.S. history or the history of Europe, Africa and Latin America. At least 3 hours must be in both colloquium and seminar courses. In addition, students must take the following required 12 hours HIST 5342, HIST 5343, HIST 5345, and HIST 5348, plus an additional six hours of internship (HIST 5644). Students electing to complete an internship in archival management will also earn the certificate in archival administration (see above).

Students interested in either archival administration or public history as an area of study are encouraged to consult the Graduate Advisor to discuss a program of work.

## **Master of Education in Teaching (M.Ed.T.)**

History may be chosen as an appropriate academic specialization or teaching field for students

enrolled in the Master of Education in Teaching Degree Program. The History Department offers courses that qualify as an academic area or teaching field for elementary and secondary teachers. HIST 5340 and/or HIST 5341 are especially recommended for students in the M.Ed.T. program, and for others who wish to broaden their historical knowledge for classroom teaching. See Master of Education in Teaching Degree Program.

## Ph.D. Degree Requirements

Students accepted into the transatlantic MA/PhD program are expected to take a total of 48 semester credit hours in a three-year period: During the first year, students take HIST 5339, and HIST 5340 or 5341 as well as two 5000-level colloquia and two 5000-level seminars. The first year is intended to provide students with solid background knowledge in graduate-level historical study. For this purpose the Graduate Advisor will in consultation with the student choose those colloquia and seminars that best fulfill this purpose. During their second and third year, students take HIST 6337 and HIST 6338, four 6000-level colloquia, and two of the three 6000-level seminars within the field of transatlantic history. In their last semester, students enroll in HIST 6690 to prepare for the Comprehensive Exam.

HIST 5339: Historical Theory & Methodology

HIST 5340: Issues and Interpretations in U.S. History

HIST 5341: Issues and Interpretations in European/Latin American/African History

### 5000-Level Colloquiums and Seminars

These courses will be chosen from the 5000-level colloquiums and seminars offered during the student's first year of study.

### Introduction to Transatlantic History

HIST 6337: Introduction to Transatlantic History to 1800

HIST 6338: Introduction to Transatlantic History post 1800

### 6000-Level Colloquia:

HIST 6301: Exploration and Cartography

HIST 6302: Migration and Settlement

HIST 6303: Revolutions and Transformations

HIST 6304: Identities and Encounters

### 6000-Level Seminars:

HIST 6321: Transatlantic History, 1492-1800

HIST 6322: Transatlantic History, 1800-Present

HIST 6323: Colonialism and Imperialism, 1700-Present

Full time doctoral students are expected to take nine hours each semester. Part time students are required to take at least six hours each semester. Each semester a student must consult the Graduate Advisor before he/she can be cleared to register.

### Course of study for full-time students

First Year	
Fall	Spring
HIST 5339	HIST 5340 or 5341
one 5000-level colloquium	one 5000-level seminar
one 5000-level seminar	one 5000-level colloquium
Second Year	
Fall	Spring
HIST 6337	HIST 6303
HIST 6301	HIST 6321
HIST 6302	One elective course
Third Year	
Fall	Spring

HIST 6338	HIST 6322
HIST 6304	HIST 6690
HIST 6323	
<b>Fourth Year</b>	
<b>Fall</b>	<b>Spring</b>
Comprehensive Exam	Dissertation Proposal is due
<b>Fifth and Sixth Year</b>	
Research and Writing of the dissertation	

## Diagnostic Evaluation

At the end of the first academic year or after the student has completed the first 18 hours of coursework, each student will have to pass a diagnostic evaluation. History faculty with whom the student has worked will be asked to submit a written evaluation of the student's potential to continue in the program, using a form developed by the Graduate Advisor. The Graduate Studies Committee will review these evaluations and give each student one of four results:

1. approval to continue in the doctoral program;
2. approval to continue with specified remedial work;
3. failure, but with permission for assessment through a second diagnostic evaluation after no more than one year;
4. failure and referral of the student to the MA program, in which the student will be allowed to work towards a terminal MA degree.

## Language Requirement

If the student has not already fulfilled the foreign language requirement before entering the MA/PhD program, he/she is expected to use the first three years in the program to satisfy the foreign language requirement. The student is expected to choose a language that will be required to work on the PhD topic of his/her choice. Each student is expected to have a solid reading knowledge in at least one transatlantic language (modern languages of the European and African peoples other than English). The language proficiency can be demonstrated in three different ways:

1. If the student has not already taken four semesters (from an accredited university) in a single foreign language with at least a B before being admitted to the MA/PhD program (within 10 years prior to admission), the student needs to complete four semesters in one foreign language with at least a grade of B prior to taking the Comprehensive Exam.
2. Demonstrating proficiency in a foreign language by taking the CLEP test and scoring 71-80 in German, 68-80 in French, and 67-80 in Spanish.
3. Taking the Reading Comprehension Exercise by an appropriate faculty member in which the student during one semester must read one monograph (about 200-300 pages) in a language other than English and submit a five-seven page summary in English, which must include up to three pages of direct translation.

The language requirement must be satisfied before the student can take the Comprehensive Exam. For the student at the dissertation stage, the candidate's doctoral committee may require that the student demonstrates competency in a second foreign language in the same fashion as the first foreign language if that second language is judged essential for the student's dissertation research.

## Comprehensive Exam

### Comprehensive Exam Committee

If the student is allowed to stay in the program, he/she should, after consultation with the Ph.D. Advisor, consider establishing a five-member Comprehensive Exam Committee. The student must first ask a graduate faculty member whose research closely relates to the student's anticipated dissertation topic to chair the committee. The chair of the committee will then assist the student in assembling the rest of the committee. Four of the five committee members must be from UTA's

History Department. The PhD advisor reserves the right to attend the oral portion of the Comprehensive Exam. One member can be from outside the department or even from another university. All five members of the committee will read and assess the comprehensive examination and the dissertation prospectus.

### **Comprehensive Exam**

After the student has completed all or most of the 48 hours of coursework and satisfied the language requirement, he/she, upon consultation with the Ph.D. Advisor and the Comprehensive Exam Committee, should begin preparing for the Ph.D. Comprehensive Exam. It is strongly recommended that students wait until they have completed all 48 hours of coursework before they take the Exam. To prepare for the Comprehensive Examination, students may enroll in Independent Study courses, HIST 6190, 6390, 6690, or 6990 during their sixth semester.

Only after the student has the approval of the Ph.D. Advisor, he/she may arrange the date of the exam in consultation with all committee members. Only then may the **Request for the Comprehensive Examination** form be filed with the Graduate School. Please make sure to file the **Request for the Comprehensive Examination** in the first four weeks of the semester. (See the graduate program assistant in the History Department office to file the form.)

The Comprehensive Examination is meant to test the student's knowledge in at least three broad areas of study and is designed to determine whether the student is prepared to teach in those areas. **There are six areas for the Comprehensive Examination:**

1. Colonialism and Imperialism

This area focuses on the history of power relations among the peoples and nations within the transatlantic world.

2. Migration

This area focuses on the experience of migrants from Europe and Africa and the multi-cultural societies that developed in North and South America.

3. African Diaspora

This area is dedicated to the study of the forced migration of African peoples and the experience of their descendants throughout the transatlantic world.

4. History of Cartography and Historical Geography

This area deals with the visual representation of European expansion and European exploration of North and South America as well as the impact of geography on history.

5. Political and Economic Revolutions

This area focuses on the political revolutions and transformations from the end of the sixteenth century to the present day, industrialization, and the social unrest and protest movements that shaped political culture and the transatlantic world.

6. Intercultural Transfers

This area focuses on the intercultural transfer of ideas and concepts among societies within the transatlantic world.

The written portion of the exam will be taken over a period of three consecutive days, seven hours each day, from 9:00 a.m. to 4:00 p.m. The students will be examined over one area each day. Beginning with the first morning, the student should report to the graduate program assistant in the History Department office, who will issue the student the relevant question(s) for that day's examination. Students may use a personal computer available in the department to take their examination. They may not use texts or notes during the exam. Chairs should ensure that time-limits for individual parts of the examination are observed.

After the written exams are completed and the committee has read all three parts, students will take the oral exam (within a week of the written exam). Students must take both the written and oral exams or they will automatically fail the comprehensive exam. After the oral exam is over, the committee members will discuss the exam as a whole (written and oral). Then the committee will

decided on one of the four options listed below.

- A) Passed, approval and recommendation to begin dissertation research under the supervision of the committee chair.
- B) Passed, approval to remain in the program upon meeting certain specified additional requirements.
- C) Failed, with permission to retake the examination after a certain period as specified by the examining committee.
- D) Failed: Recommendation not to continue in the program.

Students are required to pass this examination before they proceed to the dissertation (ABD) phase of the program.

## Dissertation Guidelines

By the end of the first semester after the successful completion of the Comprehensive Examination, the student should submit a **dissertation prospectus** to his/her committee and the Ph.D. Advisor who assures that it fulfills the expectations of a doctoral project in transatlantic history. The dissertation committee ordinarily consists of three of the five professors involved in the Comprehensive Examination of the student. **All three members of the dissertation committee must be members of the UT Arlington History Department. The student together with his/her primary supervisor may, if deemed necessary, invite outside readers to become additional members of the dissertation committee.** Students should work closely with the chair of their committee while researching and writing their dissertation.

During the dissertation phase of the program, students enroll in HIST 6399, 6699 and 6999 and, in exceptional cases with prior approval of the Ph.D. Advisor, in HIST 6190. History 6190 may be taken by students following their Comprehensive Exams for a maximum of four semesters, if their dissertation chair concludes that in a given semester they are not engaged **full-time in work** on their dissertation. In the final semester of dissertation work, students must enroll in HIST 6999 to be in compliance with the requirement of the Graduate School. Students should be aware that the dissertation defense should occur **after NO more than four years from the Comprehensive Examination**. If the student takes more time to finish the doctoral dissertation, he/she has to file for an extension with the Graduate School.

Once the student, the chair of the committee, and the primary readers agree that the dissertation is ready to be defended, the student must submit the **request for dissertation defense** form and schedule the **dissertation defense**. Before he/she **applies for graduation**, the student must receive approval from the Ph.D. Advisor. The student should furnish each committee member with a copy of the dissertation, including notes and bibliography, at least three weeks prior to the defense date. The oral defense of the dissertation generally lasts 1-2 hours. Questioning of the candidate will be supervised by the chair of the student's dissertation committee. Committee members may request that the dissertation be further revised and may withhold final approval of the dissertation until the revisions have been made. If the dissertation has been approved by the committee, the student has to submit the **dissertation** and the **dissertation defense report** to the Graduate School. The deadline dates for each semester are published in the Graduate School Calendar.

## HIST Courses

### HIST5191 – INDEPENDENT STUDY

1 Lecture Hour · 0 Lab Hours

For masters students pursuing independent research or study under the supervision of a faculty member.



### **HIST5291 – INDEPENDENT STUDY**

**2** Lecture Hours · **0** Lab Hours

For masters students pursuing independent research or study under the supervision of a faculty member.

### **HIST5301 – READING COLLOQUIUM IN 19TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in 19th Century United States history. The specific literature and issues examined will vary with the instructor.

### **HIST5302 – READING COLLOQUIUM IN 20TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in 20th Century United States history. The specific literature and issues examined will vary with the instructor.

### **HIST5304 – READING COLLOQUIUM IN REGIONAL /TOPICAL U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues pertaining to a region or a major topic in the history of the U.S. The specific literature and issues examined will vary with the instructor.

### **HIST5310 – READING COLLOQUIUM IN ANCIENT AND MEDIEVAL HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in ancient and medieval history. The specific literature and issues examined will vary with the instructor.

### **HIST5311 – READING COLLOQUIUM IN PRE-1800 EUROPEAN / LATIN AMERICAN / AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in Pre-1800 European / Latin American / African history. The specific literature and issues examined will vary with the instructor.

### **HIST5312 – READING COLLOQUIUM IN POST-1800 EUROPEAN / LATIN AMERICAN / AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues in Post-1800 European / Latin American / African history. The specific literature and issues examined will vary with the instructor.

### **HIST5313 – READING COLLOQUIUM IN REGIONAL/TOPICAL EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

An examination of the historical literature and issues pertaining to a region or a major topic in European / Latin American / African history. The specific literature and issues examined will vary with the instructor.

### **HIST5321 – RESEARCH SEMINAR IN 19TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of 19th Century United States history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5322 – RESEARCH SEMINAR IN 20TH CENTURY U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of 20th Century United States history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5324 – RESEARCH SEMINAR IN REGIONAL/TOPICAL U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of a region or a major topic in the history of the U.S., involving research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5330 – RESEARCH SEMINAR IN ANCIENT AND MEDIEVAL HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of ancient and medieval history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5331 – RESEARCH SEMINAR IN PRE-1800 EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of Pre-1800 European / Latin American / African history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5332 – RESEARCH SEMINAR IN POST-1800 EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a major aspect of Post-1800 European / Latin American / African history, involving original research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5333 – RESEARCH SEMINAR IN REGIONAL/TOPICAL EUROPEAN/LATIN AMERICAN/AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A detailed investigation of a region or a major topic in European / Latin American / African history, involving research and use of historical resources. The particular aspect investigated will vary with the instructor.

### **HIST5339 – HISTORICAL THEORY AND METHODOLOGY**

**3** Lecture Hours · **0** Lab Hours

An examination of theories of historical knowledge, the history of the discipline, various historical methodologies, and research techniques. Required for all history M.A. and Ph.D. students.

### **HIST5340 – ISSUES AND INTERPRETATIONS IN U.S. HISTORY**

**3** Lecture Hours · **0** Lab Hours

A critical survey of U.S. historical scholarship from colonial times to the present. Required for all history M.A. students who are emphasizing U.S. history.

### **HIST5341 – ISSUES AND INTERPRETATIONS IN EUROPEAN / LATIN AMERICAN / AFRICAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

A critical survey of European / Latin American / African historical scholarship from ancient times to the present. Required for all history M.A. students who are emphasizing European / Latin American / African history.

### **HIST5342 – PRINCIPLES OF ARCHIVES AND MUSEUMS I**



**3 Lecture Hours · 0 Lab Hours**

The historical evolution of archival science, emphasizing the development of the archives profession, archival principles and theories, appraisal and acquisition techniques, the laws affecting archives, programming and outreach, automation, conservation and preservation, and administration of collections.

### **HIST5343 – PRINCIPLES OF ARCHIVES AND MUSEUMS II**

**3 Lecture Hours · 0 Lab Hours**

Training in the methods and techniques of processing archives and historical manuscripts. Focuses on the day-to-day responsibilities of archivists and curators, such as appraising, accessioning, arranging, and describing collections.

### **HIST5345 – INTRODUCTION TO PUBLIC HISTORY**

**3 Lecture Hours · 0 Lab Hours**

An overview of the field of public history focusing on public historians, their work, their relationship to academic historians, their accomplishments, and the ethical principles under which they operate.

### **HIST5348 – TOPICS IN PUBLIC HISTORY**

**3 Lecture Hours · 0 Lab Hours**

A detailed examination of some aspect of public history (e.g. historical editing, oral history, historic preservation). The particular topic will vary with the instructor.

### **HIST5349 – TOPICS IN WORLD CIVILIZATION**

**3 Lecture Hours · 0 Lab Hours**

Examines subjects of immediate interest relating to world civilization not covered in other existing courses.

### **HIST5350 – HISTORY OF CARTOGRAPHY**

**3 Lecture Hours · 0 Lab Hours**

A history of maps and their making and cartographic documentation as a source for understanding historical development. An aspect of the history of science and technology and the history of discovery and exploration.

### **HIST5390 – DIRECTED STUDIES FOR MASTERS STUDENTS**

**3 Lecture Hours · 0 Lab Hours**

Directed study for masters students who have arranged to pursue specific topics of historical inquiry.

### **HIST5391 – INDEPENDENT STUDY**

**3 Lecture Hours · 0 Lab Hours**

For masters students pursuing independent research or study under the supervision of a faculty member.

### **HIST5392 – HISTORICAL PERSPECTIVES ON THE HUMANITIES**

**3 Lecture Hours · 0 Lab Hours**

An historical inquiry into problems and issues of contemporary relevance in the humanistic disciplines. The particular problems and issues investigated will vary with the instructor.

### **HIST5395 – NON-THESIS CAPSTONE**

**3 Lecture Hours · 0 Lab Hours**

Readings in the non-thesis student's final semester, directed by the three-person faculty committee supervising the student's program of work. Required of all non-thesis history M.A. students.

### **HIST5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

For thesis history M.A. students.

### **HIST5644 – ARCHIVAL/PUBLIC HISTORY INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

Work experience for either Archival or Public History students. Archival Certification: Hands-on experience in archives, records centers, or historical manuscripts repositories. Public History: Placement in a history-oriented position in a private or public agency or organization in the community.

### **HIST5655 – PUBLIC HISTORY INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

### **HIST5691 – INDEPENDENT STUDY**

**6** Lecture Hours · **0** Lab Hours

For masters students pursuing independent research or study under the supervision of a faculty member.

### **HIST5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

For thesis history M.A. students.

### **HIST5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

### **HIST6190 – DIRECTED STUDIES FOR PHD STUDENTS**

**1** Lecture Hour · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6191 – INDEPENDENT STUDY**

**1** Lecture Hour · **0** Lab Hours

### **HIST6301 – EXPLORATION AND CARTOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces students to the study of the period of European exploration and the mapping of the New World. Required for all history Ph.D. students.

### **HIST6302 – MIGRATION AND SETTLEMENT**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces students to the study of migration and subsequent settlement of people from Africa and Europe in North and South America from the fifteenth century to the present time. Required for all history Ph.D. students.

### **HIST6303 – REVOLUTIONS AND TRANSFORMATIONS**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces student to the study of the political, economic and cultural revolutions and transformations that occurred within the transatlantic world. Required for all history Ph.D. students.

### **HIST6304 – IDENTITIES AND ENCOUNTERS**

**3** Lecture Hours · **0** Lab Hours

This colloquium introduces students to the study of cultural and social contacts between people and societies within the transatlantic world as well as the construction of identities that resulted from these contacts. Required for all history Ph.D. students.

### **HIST6321 – TRANSATLANTIC HISTORY TO 1800**

**3** Lecture Hours · **0** Lab Hours

This seminar allows students to research topics within the field of transatlantic history from its early beginnings in the tenth century to 1800. Required for all history Ph.D. students.

### **HIST6322 – TRANSATLANTIC HISTORY POST 1800**

**3** Lecture Hours · **0** Lab Hours

This seminar allows students to research topics within the field of transatlantic history from 1800 to the present time. Required for all history Ph.D. students.

### **HIST6323 – COLONIALISM AND IMPERIALISM, 1700 - PRESENT**

**3** Lecture Hours · **0** Lab Hours

This seminar allows students to research topics within the field of the history of cartography and geography from 1700 to the present time. Required for all history Ph.D. students.

### **HIST6337 – INTRODUCTION TO TRANSATLANTIC HISTORY TO 1800**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the relevant historiography of pre-1800 transatlantic history. Required for all history Ph.D. students.

### **HIST6338 – INTRODUCTION TO TRANSATLANTIC HISTORY POST 1800**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the relevant historiography of post-1800 transatlantic history. Required for all history Ph.D. students.

### **HIST6390 – DIRECTED STUDIES FOR PHD STUDENTS**

**3** Lecture Hours · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6391 – INDEPENDENT STUDY**

**3** Lecture Hours · **0** Lab Hours

For history Ph.D. students.

### **HIST6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

### **HIST6690 – DIRECTED STUDIES FOR PHD STUDENTS**

**6** Lecture Hours · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6691 – INDEPENDENT STUDY**

**6** Lecture Hours · **0** Lab Hours

For history Ph.D. students.

### **HIST6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

### **HIST6990 – DIRECTED STUDIES FOR PHD STUDENTS**

**9** Lecture Hours · **0** Lab Hours

Directed study for Ph.D. students who have arranged to pursue specific topics of historical inquiry.

### **HIST6991 – INDEPENDENT STUDY**

**9** Lecture Hours · **0** Lab Hours

For history Ph.D. students.

### **HIST6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

### **HIST7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[Art + Art History](#)

[Communication](#)

[Criminology & Criminal  
Justice](#)

[English](#)

[History](#)

[Humanities](#)

[Modern Languages](#)

[Linguistics](#)

[Music](#)

[Philosophy & Humanities](#)

[Political Science](#)

[Sociology and  
Anthropology](#)

[Theatre Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Linguistics

College of Liberal Arts

### Chair Laurel Stvan

Web [ling.uta.edu](http://ling.uta.edu)

Phone 817.272.3133

Fax 817.272.2731

**P403 Hammond Hall**

---

### Degrees / Certificates

#### Master's Degrees

Linguistics, M.A.

Teaching English to Speakers of Other Languages, M.A.

#### Doctoral Degrees

Linguistics, B.A. to Ph.D.

Linguistics, Ph.D.

#### Certificates

Teaching English to Speakers of Other Languages (TESOL) – [Gainful Employment Disclosure](#)

---

### Graduate Faculty

[Suwon Yoon](#)

#### Professor

[Colleen Fitzgerald](#)

[David Silva](#)

#### Associate Professor

[Laurel Stvan](#)

#### Assistant Professor

[Cynthia Kilpatrick](#)

[Joseph Sabbagh](#)

[Jeffrey Witzel](#)

#### Professor Emeritus

[Jerold Edmondson](#)

#### Senior Lecturer

[Naoko Witzel](#)

---

### Graduate Advisors

[Cynthia Kilpatrick](#)

*Teaching English to Speakers of Other Languages, M.A.*

**Joseph Sabbagh**  
*Linguistics, M.A.*

**Jeffrey Witzel**  
*Linguistics, Ph.D.*

---

## Department Information

### Courses

# Department Information

## Objectives

### Degree Requirements

- **Linguistics**
- **Linguistics Degree Plans**
- **TESOL (Teaching English to Speakers of Other Languages)**
  - **TESOL Degree Plans**
  - **Certificate in Teaching English to Speakers of Other Languages (TESOL)**

### Admission Requirements for Graduate Degree Programs in Linguistics

- **Admission Factors**
- **Admission Metrics**

### Special Admissions Requirements for the Graduate Certificate in TESOL

## Objectives

Linguistics is the scientific study of language, investigating the systematic aspects of sound patterns, word formation, sentences, and meaning. The Department of Linguistics and TESOL at the University of Texas at Arlington provides training in both linguistics and TESOL. In terms of linguistics degrees, the Department trains students so that they can describe, analyze and apply theories to data representing the core areas of the field: phonology (sound patterns), syntax (sentence structure), semantics (meaning), and pragmatics (meaning in context). Students receive a foundation that requires courses in theoretical phonology, syntax, semantics, and pragmatics, but there are also opportunities to go build on these areas in terms of language documentation/field linguistics, corpus approaches, and experimental investigations. Many linguistics students pursue additional studies or doctoral concentrations in second language acquisition or work on an understudied or endangered language, areas in which Department faculty have considerable expertise. In terms of TESOL degrees, the programs cover relevant linguistic training, paired with courses in methodology and pedagogy, to equip graduates for professional careers in teaching English to speakers of other languages (TESOL). The TESOL degree programs include practicum and internship components so that students learn the theories that underly the practice, but also receive ample opportunities to put those theories and skills into practice. Required course content includes second language acquisition, the phonological and grammatical structure of English, and curriculum design. There are also several courses where linguistics and TESOL students find their studies intersecting, such as in the second language acquisition or language revitalization courses, which can be used as electives or specialization courses in various degree programs.

The Ph.D. degree provides advanced training in field linguistics and documentary linguistics, in the primary areas of the field in sound, syntax, and meaning, as well as training in corpus linguistics, experimental techniques for investigating language and language documentation. Students will pursue and develop in-depth expertise in at least one area of specialization; see the Department of Linguistics website for possible doctoral specializations based on core faculty expertise.

For further information on graduate degree programs in Linguistics, consult the program's Web site at <http://ling.uta.edu/degrees> or contact the Graduate Advisor.

## Degree Requirements

### Linguistics

Graduate programs in linguistics are primarily designed for those with a background in one or more foreign languages and/or a background in the linguistic aspects of the English language. A graduate career in linguistics may also be appropriate to those with undergraduate study in anthropology, psychology, philosophy, or religion. Applicants without formal training in linguistics are invited to apply, provided that they are prepared to meet the department's requirements for leveling courses.

Requirements for master's and doctoral degrees are given in the Advanced Degrees and Requirements section of this catalog. In addition, the following apply to those pursuing a graduate degree in linguistics:

All students pursuing a graduate degree in linguistics must meet the degree prerequisites (i.e., leveling courses) and must take the core courses appropriate to their degree as published on the department's Web site, <http://ling.uta.edu/degrees>.

### Linguistics Degree Plans

**M.A. Non-Thesis Degree Plan:** 36 hours of graduate-level coursework plus comprehensive examination on the coursework. Students requiring leveling courses must take from three to nine additional hours, for a total of up to 45 hours.

**Ph.D. Degree Plan:** Students entering the Ph.D. program (including those entering as doctoral-bound) must enter having the equivalent of LING 5300/3311, 3330, and 3340. The first semester of the program requires enrollment in LING 5320 and 5330. The doctoral degree requires graduate coursework as follows: 18 hours of linguistic core courses, 12 hours of methods courses, 3 hours of professional development, 6 hours in an area of specialization, 6 hours of seminar courses (separate from other requirements and with at least one in planned area of specialization), 3 hours of dissertation proposal preparation (LING 6391) and 9 hours of dissertation (LING 6999). Students entering with a M.A. in linguistics may be able to waive up to 15 hours, at the discretion of the department, for equivalent courses completed at a B or higher in their master's program.

Theoretical core courses: LING 5320, LING 5321, LING 5330, LING 5331, LING 5345, LING 5347

Methods Courses: LING 5380, LING 5381, LING 6380, LING 6381 (or an approved course in research design or statistics offered by another department)

Professional Development Courses: LING 6300

Seminar requirement: All students must take 6 hours in seminars, using courses from the following list: LING 6390, LING 6392, LING 6393, LING 6394, LING 6395. Students should consult with their advisor in planning choices; at least one seminar must be in area of specialization.

BA-to-PH.D. students must successfully defend their dissertation proposal in order to be granted the M.A. degree in linguistics.

All Ph.D. students must demonstrate knowledge of core areas in linguistics by passing the diagnostic examination requirement outlined on the departmental website.

Doctoral students must satisfy all the coursework requirements of the doctoral program (including specialization and seminar courses) prior to taking courses that do not fulfill the requirements. Any exception to this policy must be approved by a majority vote of the Graduate Studies Committee.

In addition, there are foreign language and professional activities requirements that must be met. Visit <http://ling.uta.edu/degrees/phd-linguistics> for details.

## TESOL (Teaching English to Speakers of Other Languages)

Graduate programs in TESOL are primarily designed for those with a background in English language and literature and/or education. A graduate career in TESOL may also be appropriate to those with undergraduate study in a foreign language, international studies, or community development.

Requirements for master's degrees are given in the Advanced Degrees and Requirements section of this catalog. In addition, the following apply to those pursuing a graduate degree in TESOL:

### TESOL Degree Plans

**M.A. Non-Thesis Degree Plan:** 36 hours of graduate-level coursework plus comprehensive examination on the coursework.

All M.A. TESOL students must demonstrate knowledge of a foreign language prior to unconditional admission to the degree program. Those without such background may pursue study of a foreign language at U.T. Arlington concurrent with probationary enrollment in the M.A. TESOL program.

For additional information on prerequisites or degree requirements, consult the Graduate Advisor.

### Certificate in Teaching English to Speakers of Other Languages (TESOL)

This program provides preparation through study and practice for the individual who wishes to teach English to speakers of other languages. It is available to any student who has been admitted to the Graduate School at U.T. Arlington.

The certificate requires 18 hours of course work: LING 5300, 5301, 5302, 5305, 5310, and 5303 or 5304. In addition to the course work, there is a practicum; this is done under LING 5110. LING 5300 (or equivalent linguistics course work) is a prerequisite for LING 5301, 5302, 5305, and 5310; LING 5301 is a prerequisite for 5303, and 5304. Even if the student presents an equivalency of LING 5300, 5301, and/or other course work, the 18-hour requirement must be met. A maximum of three credit hours of course work done at another institution can be transferred and counted toward the certificate.

Upon beginning study for the certificate, the student should contact the Graduate Advisor in TESOL to declare the intention to earn the certificate.

## Admission Requirements for Graduate Degree Programs in Linguistics

For Admission Requirements for Fall 2010 semester and thereafter, see <http://ling.uta.edu/documents/LINGTESOL-Admissions-Criteria-Effective-Fall-2009.pdf> for a downloadable PDF.

In evaluating candidates for admissions to its graduate degree programs, the Linguistics & TESOL Faculty has adopted a comprehensive approach that is sensitive to the diversity of backgrounds of its applicants. To this end, the following constellation of quantitative and qualitative factors has been established to make explicit the range of criteria upon which admissions decisions will be based. These factors are then applied to the Admission Metrics established for each degree program. (See below for admission requirements for the Graduate Certificate in TESOL.)

### Admission Factors



Admission decisions into a degree program in the Department of Linguistics & TESOL are made on the basis of two types of factors, quantitative and qualitative. PhD applicants must include an academic writing sample.

#### 1. Quantitative Factors

##### a. Grade Point Average (GPA)

- i. For M.A. program applicants, undergraduate GPA is determined by the U.T. Arlington Graduate School.
- ii. For Ph.D. program applicants, GPA is based on all graduate work completed and recorded at the time the applicant submits an application for admission.
- iii. For BA-to-PhD applicants, GPA is on the undergraduate GPA as determined by the U.T. Arlington Graduate School.

b. Graduate Record Examination (GRE) Scores. All applicants are required to submit GRE scores. There are no exceptions. The Department of Linguistics & TESOL evaluates each applicant's sub-scores separately: verbal, quantitative, and analytical.

c. TOEFL Scores (international applications only) Applicants for whom English is not their native language and who have not been granted either an undergraduate or graduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) or IELTS equivalent score. There are no exceptions.

#### 2. Qualitative Factors

a. Letters of Recommendation. Each applicant must present three (3) letters of recommendation that unequivocally indicate that the applicant is prepared for and capable of successful graduate study in linguistics or TESOL at U.T. Arlington. The letters should further indicate that the applicant is capable of completing the appropriate degree program.

b. Statement of intent for academic study in our department. Each applicant must write a statement that explains their plan of study and specialization in our department. The statement will be evaluated on the degree to which it is clear, reasonable, and consistent with the research and teaching agenda of the current faculty in Linguistics & TESOL at U.T. Arlington. Prospective applicants should consider the departmental website and faculty research and teaching areas as they evaluate whether they would be able to accomplish their plan of study in our department, especially if they are applying to the doctoral program. Possible areas of specialization are those outlined at <http://ling.uta.edu/degrees/phd-linguistics>. The statement should also convey a level of commitment and maturity commensurate with the applicant's desired degree goals.

c. Undergraduate Preparation. Applicants to the M.A. in TESOL program should have passed the following three courses or reasonable equivalents as determined by the graduate advisor (U.T. Arlington equivalents are noted in parentheses):

- i. English composition (ENGL 1302)
- ii. A course on English-language literature (ENGL 2319, ENGL 2329)
- iii. The equivalent of a fourth-semester course in a foreign language (SPAN 2314, FREN 2314, etc.). Students whose undergraduate education was delivered in a language other than English are exempt from this requirement.

d. Applicants to the M.A. in Linguistics or Ph.D. in Linguistics programs should have passed the following three courses or reasonable equivalents as determined by the graduate advisor (U.T. Arlington equivalents are noted as in parentheses):

- i. English composition (ENGL 1302)
  - ii. College-level mathematics (MATH 1302)
  - iii. A laboratory science (any 1000-level course in BIOL, CHEM, GEOL or PHYS; LING 5322 may also be used to fulfill this requirement)
- e. Applicants to the Ph.D. and the BA-to-Ph.D in Linguistics programs should present all of the following: evidence of research activity during undergraduate studies; an undergraduate transcript showing coursework which demonstrates that the applicant has passed with a B or higher the following three courses or reasonable equivalents as determined by the graduate advisor (U.T. Arlington equivalents are noted as in parentheses):
- i. Introduction to linguistics (LING 3311/LING 5300)
  - ii. Phonetics and phonology (LING 3330)
  - iii. Morphology and syntax (LING 3340)
- f. Previous Graduate Work (Ph.D. applicants only.) Ph.D. applicants must present at least 30 semester credit hours of previous graduate-level coursework in any field (not necessarily linguistics) and must meet the linguistics course equivalents (LING 3311/5300, LING 3330, LING 3340).
- g. Ph.D. applicants who present fewer than 30 semester credit hours will be assessed based on whether they meet the criteria for unconditional admission for the accelerated Ph.D. in linguistics, and whether their coursework includes the linguistics course equivalents (LING 3311/5300, LING 3330, LING 3340). Such candidates who meet the unconditional admission criterion and who also have passed the three linguistics course equivalents will be considered for the BA-to-PhD program (i.e., "doctoral-bound"). Ph.D. applicants who present fewer than 30 semester credit hours and do not meet the unconditional admission criterion AND also the criterion of passing the three linguistics course equivalents will automatically be considered as applicants to the M.A. Linguistics program.
- h. Writing Sample (required for PhD applicants, optional for other programs): Applicants must submit an academic writing sample (research paper) of 20 pages or less. The paper must be in an area of language or linguistic study, and demonstrate a strong prose style, a solid handle on argumentation, and the ability to do academic research in linguistics or a closely related field.

### Admission Metrics

In formulating a recommendation for admission, the graduate advisors will apply the following admission metrics to each applicant's admission dossier.

#### 1. M.A. in TESOL

- a. Unconditional Admission. Typically, applicants for the M.A. in TESOL will be offered unconditional admission if they meet either of the following two sets of criteria:
  - i. The applicant presents an undergraduate GPA of at least 3.0, a GRE Verbal score of at least 550 (156 on the 2011 or later version), a GRE Quantitative score of at least 450 (141 on the 2011 or later version), a GRE Analytical score of at least 4.5, and a full set of Qualitative Factors.. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.
  - ii. The applicant presents an undergraduate GPA of at least 3.5, a GRE Verbal score of at least 500 (153 on the 2011 or later version), a GRE Quantitative score of at least 400 (140 on the

2011 or later version), a GRE Analytical score of at least 4.0, and a full set of Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.

- b. Probationary Admission. Applicants for the M.A. in TESOL typically present a complete application that has one of the following:
- i. includes a GRE Verbal score of less than 500 (153);; or
  - ii. includes a GRE Quantitative score of less than 400 (140); or
  - iii. includes a GRE Analytical score of less than 4.0; or
  - iv. lacks the undergraduate preparation specified above but who otherwise meet a majority of the remaining admission criteria (including an undergraduate GPA of at least 3.0), will be eligible for probationary admission. Students on probation must:
    - complete any undergraduate courses necessary for unconditional admission during their first two semesters of study; and
    - achieve a GPA of at least 3.3 in the first 9 graduate-level courses taken as an M.A. TESOL student.

## 2. M.A. in Linguistics

- a. Unconditional Admission. Typically, applicants for the M.A. in Linguistics will be offered unconditional admission if they meet either of the following sets of criteria:
- i. The applicant presents an undergraduate GPA of at least 3.0, a GRE Verbal score of at least 450 (150 on the 2011 or later version), a GRE Quantitative score of at least 550 (146 on the 2011 or later system), a GRE Analytical score of at least 4.5, and a full set of acceptable Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.
  - ii. The applicant presents an undergraduate GPA of at least 3.5, a GRE Verbal score of at least 400 (146 on the 2011 or later version), a GRE Quantitative score of at least 500 (144 on the 201a or later system), a GRE Analytical score of at least 4.0, and a full set of acceptable Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.
- b. Probationary Admission. Applicants for the M.A. in Linguistics typically present a complete application that has one of the following:
- i. includes a GRE Verbal score of less than 400 (146); or
  - ii. includes a GRE Quantitative score of less than 500 (144); or
  - iii. includes a GRE Analytical score of less than 4.0; or
  - iv. lacks the undergraduate preparation specified above, but who otherwise meet a majority of the remaining admission criteria (including an undergraduate GPA of at least 3.0), will be eligible for probationary admission. Students on probation must:

- complete any undergraduate courses necessary for unconditional admission during their first two semesters of study; and
- achieve a GPA of at least 3.3 in the first 9 graduate-level credit hours (in LING courses) as an M.A. Linguistics student.

### 3. BA-to-PhD applicants in Linguistics

- a. Unconditional admission. Typically, applicants for the BA-to-Ph.D. in Linguistics program must be admitted unconditionally. Unconditional admission requirements are as follows. The applicant presents an undergraduate GPA of at least 3.6 (on a 4.0 scale) based on upper division course work (junior and senior level or equivalent) in a four year BA in linguistics program or a BA or BS in an allied field. Regardless of degree program, the coursework must include courses equivalent to LING 3330 and LING 3340. In addition, the applicant presents a GRE Verbal score of at least 450, a GRE Quantitative score of at least 550, a GRE Analytical score of at least 4.0, and a full set of excellent Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit a Test of English as a Foreign Language (TOEFL) score of at least 100 iBT, or 250 if computer based, or 600 if paper based (or its IELTS equivalent) and also submit a score from the Test of Spoken English, the Speaking Section of the TOEFL iBT, or the Speaking Section of the IELTS that documents the applicant's proficiency in spoken English. The speaking score is used for making determination for assistantships; applicants who wish to be considered for an assistantship must receive a score of 45 or higher on the TSE, a score of 23 on the Speaking Section of the TOEFL iBT, or a score of 7 on the Speaking Section of the IELTS. This and other requirements for holding an assistantship are described in the [Graduate Assistantship/Associateship Policy](#).

### 4. Ph.D. in Linguistics

- a. Unconditional Admission. Typically, applicants for the Ph.D. in Linguistics will be eligible for unconditional admission if they meet either of the following sets of criteria:
- The applicant presents a graduate GPA of at least 3.3, a GRE Verbal score of at least 500 (153 on the 2011 or later version), a GRE Quantitative score of at least 600 (148 on the 2011 or later version), a GRE Analytical score of at least 4.5, and a full set of excellent Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit scores on the Speaking section of either the Test of English as a Foreign Language (TOEFL) or the IELTS. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit a Test of English as a Foreign Language (TOEFL) score of at least 100 iBT, or 250 if computer based, or 600 if paper based (or its IELTS equivalent) and also submit a score from the Test of Spoken English, the Speaking Section of the TOEFL iBT, or the Speaking Section of the IELTS. that documents the applicant's proficiency in spoken English. The speaking score is used for making determinations for assistantships; applicants who wish to be considered for an assistantship must receive a score of 45 or higher on the TSE, a score of 23 on the Speaking Section of the TOEFL iBT, or a score of 7 on the Speaking Section of the IELTS. This and other requirements for holding an assistantship are described in

the University's [Graduate Assistantship/Associateship Policy](#).

- ii. The applicant presents an undergraduate GPA of at least 3.6, a GRE Verbal score of at least 450 (150 on the 2011 or later version), a GRE Quantitative score of at least 550 (146 on the 2011 or later version), a GRE Analytical score of at least 4.0, and a full set of excellent Qualitative Factors. In addition, applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also submit a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based (or its IELTS equivalent) and also submit a score from the Test of Spoken English, the Speaking Section of the TOEFL iBT, or the Speaking Section of the IELTS. that documents the applicants' proficiency in spoken English. The speaking score is used for making determinations for assistantships; applicants who wish to be considered for an assistantship must receive a score of 45 or higher on the TSE, a score of 23 on the Speaking Section of the TOEFL iBT, or a score of 7 on the Speaking Section of the IELTS. This and other requirements for holding an assistantship are described in the University's [Graduate Assistantship/Associateship Policy](#).
- b. Probationary Admission. Applicants for the Ph.D. in Linguistics typically present a complete application that has one of the following:
- i. includes a GRE Verbal score of less than 450 (150);
  - ii. or includes a GRE Quantitative score of less than 550 (146); or
  - iii. includes a GRE Analytical score of less than 4.0
  - iv. lacks the undergraduate preparation specified above but who otherwise meet a majority of the remaining admission criteria (including a graduate GPA of at least 3.3 and for doctoral admissions, presents strong qualitative materials), will be considered for probationary admission. Students on probation must:
    - Deferred Admission Applicants for whom the admission file is incomplete will have a final decision admission deferred. In such cases, a final decision will be made only when the applicant presents a complete admission file.
    - Denial of Admission Applicants who do not meet a majority of the admission standards (both quantitative and qualitative) set forth above will be denied admission. For doctoral admission in particular, qualitative factors such as writing sample, statement of intent, or area of intended work may result in a student being denied admission even when quantitative factors are met.
    - Regarding Provisional Admission: The Department of Linguistics and TESOL does not permit Provisional Admission. All applicants must present a complete set of credentials before their application will be evaluated.

## Special Admissions Requirements for the Graduate Certificate in TESOL

Students wishing to apply to the U.T. Arlington Graduate School solely for the purpose of earning the Graduate Certificate in TESOL must have earned an undergraduate degree at an accredited institution and present an undergraduate GPA of at least 3.0 (as determined by the U.T. Arlington Graduate School). Applicants for whom English is not their native language and who have not been granted an undergraduate degree by an English-medium institution must also present a Test of English as a Foreign Language (TOEFL) score of at least 100 iBt, or 250 if computer based, or 600 if paper based.

Students seeking to transfer from Special Student or Certificate status into a graduate degree program at U.T. Arlington must re-apply to the U.T. Arlington Graduate School as degree-seeking students and meet all published admissions requirements, including those pertaining to standardized tests. No student will be "automatically" or "exceptionally" moved from Special Student or Certificate status into any graduate degree program.

The Web site for the U.T. Arlington Office of Graduate Studies provides additional information about graduate study at U.T. Arlington and about the admission process, including general testing requirements and other paperwork. Students may apply for admission online or request application materials be sent via post.

## LING Courses

### LING5100 – THESIS WRITING SEMINAR

1 Lecture Hour · 0 Lab Hours

Techniques for researching and writing a thesis/dissertation in linguistics. Required of all students who have elected the Thesis or Thesis Substitute degree option in Linguistics. Prerequisite: completion of at least 9 hours of LING courses.

### LING5110 – TESOL PRACTICUM

1 Lecture Hour · 0 Lab Hours

In observing ESOL classes or in teaching learners of ESOL, the student demonstrates ability to apply the principles presented in the TESOL Certificate coursework. Prerequisite: LING 5302 and LING 5305 and permission of instructor.

### LING5190 – CONFERENCE COURSE IN LINGUISTICS

1 Lecture Hour · 0 Lab Hours

Graded P/F. Prerequisite: Permission of instructor.

### LING5300 – LINGUISTIC ANALYSIS

3 Lecture Hours · 0 Lab Hours

This course introduces students to the field of linguistics, the systematic study of human language. Drawing on data from a range of languages, it will examine the sound patterns of language (phonetics and phonology), words and word formation (morphology), sentence structure (syntax), meaning (semantics), and language in context (pragmatics). Emphasis will be placed on methods of linguistic analysis to solve problems in phonology, morphology, syntax, and semantics. May not be used to fulfill M.A. or Ph.D. degree requirements in linguistics

### LING5301 – TEACHING ENGLISH AS A SECOND OR FOREIGN LANGUAGE

3 Lecture Hours · 0 Lab Hours

Presentation and critique of methodologies of teaching English to speakers of other languages, with emphasis on techniques of teaching aural comprehension; speaking, reading, and writing skills; attention to testing, language laboratory, and linguistic-cultural differences.

### LING5302 – METHODS AND MATERIALS FOR TEACHING ENGLISH AS A



## **SECOND OR FOREIGN LANGUAGE**

**3** Lecture Hours · **0** Lab Hours

Systematic study of the application of linguistic theory and findings; emphasis on pedagogical strategies, materials, and tests; attention to current and past research and practices. Prerequisite: LING 5301.

## **LING5303 – CONTRASTIVE ANALYSIS AND ERROR ANALYSIS IN THE TEACHING OF ENGLISH AS A SECOND OR FOREIGN LANGUAGE**

**3** Lecture Hours · **0** Lab Hours

A study of contrastive analysis and error analysis as means of defining student problems and progress; emphasis on current research; application to specific problems and contexts. Prerequisite: LING 5300 and LING 5301.

## **LING5304 – PEDAGOGICAL GRAMMAR OF ENGLISH**

**3** Lecture Hours · **0** Lab Hours

Grammaticality, variation, and acceptability applied to teaching English as a second or foreign language. Problems of description; means of application; adaptation to current pedagogical methods. Prerequisite: LING 5300 and LING 5301.

## **LING5305 – SECOND LANGUAGE ACQUISITION**

**3** Lecture Hours · **0** Lab Hours

Study of the processes of first and second language acquisition, their similarities and differences, language disorders, language perception and production, and implications of language acquisition research for linguistic theory and language teaching. Prerequisite: LING 5300 or permission of instructor.

## **LING5306 – TESOL CURRICULUM DESIGN**

**3** Lecture Hours · **0** Lab Hours

Systematic presentation of elements in development, management and evaluation of TESOL programs. Attention to needs analysis, syllabus design, materials selection and adaptation, teaching and evaluation in language curriculum design. Prerequisite: LING 5301.

## **LING5307 – PEDAGOGICAL PHONOLOGY OF ENGLISH**

**3** Lecture Hours · **0** Lab Hours

A study of the sound system of English. Topics include segmental phonemes, stress, length, intonation and variation at the lexical and utterance levels. Application to teaching English as a second or foreign language. Problems of description; means of application; adaptation to current pedagogical methods. Prerequisite: LING 5300 and LING 5301.

## **LING5310 – SOCIOLINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

The study of language and social context (made up of society and individuals). Content includes language as a social phenomenon, theoretical perspectives on relationship between language, society and individuals, basic concepts in sociolinguistics; and may include topics in macro- and micro-sociolinguistics such as multilingualism, language planning and standardization, linguistic variation, code switching, conversational analysis, and language and gender.

## **LING5311 – SOCIOLINGUISTICS OF SOCIETY**

**3** Lecture Hours · **0** Lab Hours

The study of macro-sociolinguistics, including topics such as multilingualism, language standardization and planning, literacy, language dominance, maintenance and death, language and identity, diglossia, and pidgins and creoles. Prerequisite: LING 5310.

## **LING5312 – LANGUAGE AND GENDER**

**3** Lecture Hours · **0** Lab Hours

The role of language in the expression and creation of gender identities. Gender differences in language structure and use, men's and women's languages in other cultures, the acquisition of gendered ways of speaking, and sexism in language. Prerequisite: LING 5310.

### **LING5313 – TOPICS IN SOCIOLINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Selected topics relating the scientific methodologies of linguistics to larger concerns of society and culture including cognition, motivation, description and analysis. May be repeated for credit when topic changes. Prerequisite: LING 5310.

### **LING5314 – HISTORICAL AND COMPARATIVE LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

The study of language development and change; comparative method and its use in linguistic reconstruction; laws of language change. Prerequisite: LING 3330 or permission of instructor.

### **LING5320 – PHONOLOGICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

Explores the principles governing sound systems in human languages. Prerequisite: LING 3330 or permission of instructor.

### **LING5321 – ADVANCED PHONOLOGICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A continuation of LING 5320. Topics include autosegmental analysis, lexical phonology, metrical phonology and phonological feature geometry. May be repeated for credit when topic changes. Prerequisite: LING 5320.

### **LING5322 – LABORATORY PHONOLOGY**

**3** Lecture Hours · **0** Lab Hours

An investigation into the physical properties of human speech. Students will gain hands-on experience with computer-assisted speech analysis. No prior computer experience is assumed. Prerequisite: LING 5320

### **LING5326 – BILINGUALISM**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to issues related to bilinguals and bilingualism. The areas that will be covered include different types of bilinguals/bilingualism, bilingual education, the cognitive benefits (or disadvantages) of being a bilingual, and language processing in bilinguals. Prerequisite: LING 5300

### **LING5328 – PSYCHOLINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

This course will introduce students to psycholinguistics, or the study of the cognitive processes involved in the acquisition, comprehension, and production of language. The class will focus mainly on language perception and production by native speakers, but will also address issues related to bilingual/second language processing. Prerequisite: LING 5300.

### **LING5330 – FORMAL SYNTAX**

**3** Lecture Hours · **0** Lab Hours

Explores the grammatical structures characteristic of human language by analyzing data from diverse languages within the theoretical framework of formal syntax. Prerequisite: LING 3340 or permission of instructor.

### **LING5331 – ADVANCED FORMAL SYNTAX**



**3 Lecture Hours · 0 Lab Hours**

A continuation of LING 5330. Investigates theoretical controversies in formal syntax and provides extensive opportunity for application in linguistic field work. Prerequisite: LING 5330

### **LING5334 – MORPHOLOGY**

**3 Lecture Hours · 0 Lab Hours**

A theoretical and typological investigation into the nature of word-structure and word-formation processes in human languages. Prerequisite: LING 5320 or LING 5330.

### **LING5335 – LANGUAGE UNIVERSALS AND LINGUISTIC TYPOLOGY**

**3 Lecture Hours · 0 Lab Hours**

Consideration of universals in human language, their explanation and description, and language types. Prerequisite: LING 5330.

### **LING5345 – SEMANTICS**

**3 Lecture Hours · 0 Lab Hours**

Considers meaning with respect to how humans form concepts in terms of semantic features, categorization, prototype imaging, cultural scenes, scripting and coherence within world views. Prerequisite: LING 3340 or permission of instructor.

### **LING5346 – TOPICS IN APPLIED LINGUISTICS**

**3 Lecture Hours · 0 Lab Hours**

### **LING5347 – PRAGMATICS**

**3 Lecture Hours · 0 Lab Hours**

Analysis of how context and form interact with meaning. Topics may include deixis, reference, speech acts, presupposition, implicature, information structure and intonation.

### **LING5350 – TEXT ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Methods of charting and analyzing texts to reveal the systematic contributions of pragmatic choices to their organization and meaning. Prerequisite: LING 3340.

### **LING5360 – NON-WESTERN LINGUISTIC STRUCTURES**

**3 Lecture Hours · 0 Lab Hours**

Study of a selected non-Western language, language family or language area based on descriptive linguistic analysis. May be repeated once for credit as the topic varies. Prerequisite: LING 3330 and LING 3340.

### **LING5361 – READINGS IN NON-WESTERN LINGUISTIC STRUCTURES**

**3 Lecture Hours · 0 Lab Hours**

May not be used to fulfill the non-Western language requirement.

### **LING5362 – LANGUAGE DOCUMENTATION**

**3 Lecture Hours · 0 Lab Hours**

The course discusses fundamental issues that are part of language documenting and description. These include project design, research ethics and intellectual property, researcher and community rights and responsibilities, world language ecology, technology and software, archiving issues, grant-writing fundamentals, and related issues that form best practices for language documentation projects. Prerequisite: LING 5300

### **LING5363 – LANGUAGE ENDANGERMENT AND REVITALIZATION**

**3** Lecture Hours · **0** Lab Hours

This course examines language endangerment and what it means for a language to become endangered, and studies language revitalization. Case studies are presented where communities seek to maintain the number of speakers or revive the language. Also offered as LING 4363. Credit will be granted only once for Ling 4363 or LING 5363. Prerequisite: LING 5300

### **LING5370 – HISTORY OF LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Surveys the recent history of the field of linguistics and familiarizes students with the key figures and theories in recent linguistic history, with special attention to the development and emergence of generative theories of syntax, semantics, and phonology. Prerequisite: LING 5320 or LING 5330.

### **LING5371 – SURVEY OF THEORIES IN APPLIED LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

A comparison and contrast of various linguistic theories, with consideration of their implications for application to real-world problems involving language. Prerequisite: LING 5305.

### **LING5372 – READINGS IN LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when topic changes. Prerequisite: LING 5330.

### **LING5380 – FIELD METHODS**

**3** Lecture Hours · **0** Lab Hours

The principles, techniques and practical aspects of linguistic field research. The course includes extensive practice in eliciting data (phonological, morpho-syntactic, textual and lexical) directly from a native speaker, as well as in managing, analyzing and describing the data obtained. Course may be repeated for credit when topic changes. Prerequisite: LING 5300. Permission of the Graduate Advisor.

### **LING5381 – CORPUS LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Applications of ways in which computer science and linguistics inform each other. Corpus linguistics focuses on how computers can be used to both obtain the data that we examine and to provide the tools we use for analysis. Includes readings, practical experience with several different software programs, and using sources of online corpora.

### **LING5391 – CONFERENCE COURSE IN LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

### **LING5392 – THESIS SUBSTITUTE**

**3** Lecture Hours · **0** Lab Hours

### **LING5393 – TESOL TEACHING AND OBSERVATION**

**3** Lecture Hours · **0** Lab Hours

In teaching learners of ESOL and observing ESOL classes, the student demonstrates ability to apply the principles presented in the M.A. TESOL coursework. Prerequisite: LING 5302 and LING 5305 and permission of instructor.

### **LING5395 – GRADUATE INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Employment (paid or unpaid) supervised by a faculty internship coordinator, with the student performing duties related to the academic curriculum of linguistics and/or TESOL. Students are required to submit an approved academic project related to the work performed. May be repeated with approval of Graduate Advisor.

### **LING5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **LING5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **LING5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

### **LING6191 – RESEARCH IN LINGUISTICS**

**1** Lecture Hour · **0** Lab Hours

Prerequisite: permission of instructor.

### **LING6199 – DISSERTATION**

**1** Lecture Hour · **0** Lab Hours

### **LING6291 – RESEARCH IN LINGUISTICS**

**2** Lecture Hours · **0** Lab Hours

Prerequisite: permission of instructor.

### **LING6300 – PROFESSIONAL WRITING SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: Completion of at least 9 hours of LING courses.

### **LING6360 – DISCOURSE THEORY SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: permission of instructor.

### **LING6380 – FIELD METHODS SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Course may be repeated for credit when topic changes. Prerequisite: LING 5380. Permission of the Graduate Advisor.

### **LING6381 – RESEARCH DESIGN AND STATISTICS**

**3** Lecture Hours · **0** Lab Hours

Practical training in methodologies and analytical techniques common in linguistic research. Topics include qualitative vs. quantitative data analysis, questionnaire design and administration, laboratory protocol, field protocol, population sampling, statistical analysis, and research ethics.

### **LING6390 – LINGUISTICS SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Course may be repeated for credit when topic changes. Prerequisite: permission of instructor.

### **LING6391 – RESEARCH IN LINGUISTICS**

3 Lecture Hours · 0 Lab Hours

Prerequisite: permission of instructor.

### **LING6392 – SEMINAR IN PHONETICS AND PHONOLOGY**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of phonetics and/or phonology. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5321 or permission of the instructor.

### **LING6393 – SEMINAR IN SYNTAX**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of syntax. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5331 or permission of instructor.

### **LING6394 – SEMINAR IN SEMANTICS AND PRAGMATICS**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of meaning: semantics and/or pragmatics. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5345 or 5347 or permission of instructor.

### **LING6395 – SEMINAR IN SECOND LANGUAGE ACQUISITION**

3 Lecture Hours · 0 Lab Hours

In-depth investigation of research into a specialized area of second language acquisition. Course registrants will develop original research focusing on topic at-hand, with results exchanged through discussion, presentations/reports, and/or papers. Prerequisites: LING 5305 or permission of the instructor.

### **LING6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

### **LING6491 – RESEARCH IN LINGUISTICS**

4 Lecture Hours · 0 Lab Hours

Prerequisite: permission of instructor.

### **LING6591 – RESEARCH IN LINGUISTICS**

5 Lecture Hours · 0 Lab Hours

### **LING6691 – RESEARCH IN LINGUISTICS**

6 Lecture Hours · 0 Lab Hours

Prerequisite: Permission of instructor.

### **LING6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

## LING6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

## LING7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Modern Languages

College of Liberal Arts

### Chair Christopher Conway

### Chair Antoinette Sol

Web [www.uta.edu/modl/](http://www.uta.edu/modl/)

Phone 817.272.3161

Fax 817.272.5408

**230 Hammond Hall**

### Degrees / Certificates

#### Master's Degrees

Modern Languages, M.A. (Spanish or French Concentration)

#### Certificates

Modern Languages, French Certificate

Modern Languages, Spanish Certificate

### Graduate Faculty

#### Associate Professor

- [Jinny Choi](#)
- [Christopher Conway](#)
- [Raymond Elliott](#)
- [Aimee Israel-Pelletier](#)
- [Lana Rings](#)
- [Ignacio Ruiz-Perez](#)
- [Antoinette Sol](#)
- [Kimberly van Noort](#)

#### Assistant Professor

- [Amy Austin](#)
- [Sonia Kania](#)
- [Christopher Stewart](#)
- [Sonja Watson](#)

### Graduate Advisors

#### [Amy Austin](#)

- Modern Languages, French Certificate*
- Modern Languages, M.A. (Spanish or French Concentration)*
- Modern Languages, Non-Degree Seeking*
- Modern Languages, Spanish Certificate*

## Department Information

### Courses

# Department Information

### Objectives

#### Admission Standards

- **Unconditional Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Fast Track Program in Modern Languages**
- **Fellowships**
- **Teaching Assistantships**

#### Degree Requirements

- **Modern Languages (French Spanish)**

### Objectives

Graduate programs in modern languages are designed to enhance students' competence in the language and literature of their major language field. Specific objectives are to prepare students for a career in teaching or in any area in private or public life in which knowledge of a modern language is essential and to help them develop the techniques of independent research necessary for work beyond the master's level.

### Admission Standards

In compliance with HB 1641, the UT Arlington Department of Modern Languages does not use unwritten criteria, it does not assign a specific weight to any one factor being considered, and it does not use standardized tests (i.e., the GRE) in the admissions or competitive fellowship or scholarship process as the sole criterion for consideration or as the primary criterion to end consideration of an applicant to the M.A. program. However, the GRE is required and it is used as a criterion, without specific weight, in the Department's evaluation of candidates for admission to programs at each of three levels: Unconditional, Provisional, and Probationary Admission.

The Department wishes to be as thorough and fair as possible in evaluating applicants for admission. It recognizes that some applicants may appear to be stronger according to some criteria than according to other criteria. When an applicant does not completely meet the minimum expectations for Unconditional Admission, the Department considers the applicant for possible Provisional or Probationary Admission. When the applicant is not granted any of the three levels of admission, the decision may be deferred or the application is denied. We do not wish to exclude a qualified and potentially successful candidate who perhaps has approached but not met all the criteria completely. However, we do not wish to admit candidates who, based on the criteria, are deemed to have a poor chance of successfully completing the graduate program.

### Unconditional Admission

The criteria for admission below are used, without specific weights, as positive indicators of potential success in the program. All four criteria for unconditional admission must be met in order to receive unconditional admission.

- degree in the language to be studied of 18 upper level hours in the language or equivalent [1]
- 3.0 undergraduate GPA (last 60 hours)
- submission of GRE scores [2]
- 3 letters of recommendation (from faculty if possible) sent to the Department of Modern Languages Graduate Advisor.

[1] A student with a bachelor's degree in a field other than French or Spanish may become an unconditionally admitted graduate student after fulfilling the upper level requirements in the language:

18 hours of upper level Spanish, or French or a combination of coursework and testing.

(A person with a bachelor's degree in a major other than French or Spanish must have the equivalent of 18 hours of upper level French or Spanish in order to become a master's student. The equivalency may take one of the following forms: A student may obtain 18 hours at the 3000 and 4000 level, or s/he may attempt to test out of nine hours of grammar, composition, and conversation. If a student tests out of grammar, composition, and conversation, s/he must take nine hours of literature, in order to demonstrate ability to do literary studies).

[2] Under specific circumstances the GRE may be waived for those who received their B.A. from UT Arlington. See GRE Waiver or Advanced Admission. International students must also take the TOEFL test and score 550 on the paper-and-pencil test or 213 on the computerized test, in order to qualify for unconditional admission.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### Deferred Admission

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### Fast Track Program in Modern Languages

The Fast Track Program allows outstanding undergraduate students in French or Spanish at UT Arlington to take up to three graduate seminars in Spanish or French that will earn credit toward both the Bachelor's degree and the Master's degree in Modern Languages. It is designed to encourage high standards of performance, to facilitate the transition from undergraduate to graduate study, and to reduce time needed to complete the MA . Interested undergraduate students should apply for the Fast Track Program when they are within 30 hours of completing the Bachelor's degree. To qualify, students must have completed at least 30 hours at UTA with a GPA of 3.0 in all courses and 3.25 in the last 30 hours. Before entering the Fast Track, students must also have completed the four required core courses in the French or Spanish major with a GPA of at least 3.50. Additionally, they must have already completed at least two additional 3000-4000 level courses in either French or Spanish, excluding International Business and/or translation courses, with a GPA of 3.5 or higher.

Students who successfully complete the Fast Track Program will be admitted automatically to the Graduate School to continue their graduate work in the Modern Languages MA Program once the Bachelor's degree is awarded. They will not be required to take the GRE, complete an additional application for admission to the Graduate School, supply letters of recommendation, or pay an application fee. An undergraduate student completing the maximum of nine graduate hours would be admitted to the Modern Languages MA Program with only five additional courses and a thesis remaining to complete the requirements for the thesis option.

To remain in the Fast Track Program, students must receive no grade lower than a B in any



graduate seminars taken as an undergraduate, selected with the advice and approval of the Modern Languages Graduate Advisor. Undergraduate students who do not maintain grades of B or A in the graduate courses taken will be unable to continue in the Fast Track Program but, if the courses are completed passing, will still receive credit toward their undergraduate degree requirements. Students originally denied entry into the Fast Track Program, discontinued after provisional admission, subsequently dropped or opting out are still welcome to apply to the Modern Languages MA Program in the usual way and will be considered without prejudice.

For an application form or to obtain more details about this program, contact the Modern Languages Graduate Advisor.

### Fellowships

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Graduate School Master's Fellowship in Modern Languages will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.
- The minimum undergraduate GPA requirement is 3.0, as calculated by the Graduate School, plus as GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in French or Spanish (or appropriate related field) from an accredited institution.
- Three letters of recommendation.
- A written statement explaining the applicant's reasons for graduate study in Spanish.

### Teaching Assistantships

Teaching assistantships are available for graduate students in the Department of Modern Languages. Graduate students who obtain teaching assistantships are urged to take MODL 5305 Methods of Modern Language Teaching.

### Degree Requirements

In addition to the Graduate School requirements for Master's degree programs, the following requirements apply in the Department of Modern Languages:

**Thesis:** A written comprehensive examination may be given at the discretion of the student's committee.

**Thesis Substitute:** There will be a comprehensive examination on the coursework and appropriate reading list. An oral defense of the thesis substitute may be required at the discretion of the student's supervising committee. At least 30 hours must be in coursework.

**Non-thesis:** There will be a comprehensive written examination on the coursework, an appropriate reading list, as well as an oral exam.

### Modern Languages (French; Spanish)

Those wishing to major in a modern language or literature must upon admission have a baccalaureate degree with a major in that modern language or have a minimum of 18 advanced hours, or the equivalent in language proficiency and course content.

Modern Languages (French; Spanish) Students pursuing the M.A. in Modern Languages with concentration in French or in Spanish are required to take a minimum of 9 hours in the core MODL courses along with 27 hours in their concentration or alternatively a maximum of 12 hours in the core MODL courses and 24 hours in their concentration. All students are required to take MODL 5304.

A knowledge of a second foreign language will be required, including listening, speaking, reading and writing skills as demonstrated by the successful completion of two semesters of coursework at the second-year level, MODL 5301, or by an appropriate examination.

## FREN Courses

### FREN5101 – TEACHING PRACTICUM I

1 Lecture Hour · 0 Lab Hours

Required of all teaching assistants in French in their first semester. May not be counted toward a master's degree. Graded P/F/R.

### FREN5102 – TEACHING PRACTICUM II

1 Lecture Hour · 0 Lab Hours

Required of all teaching assistants in French in their second semester. May not be counted toward a master's degree. Graded P/F/R.

### FREN5314 – ADVANCED STYLISTICS

3 Lecture Hours · 0 Lab Hours

Focuses on advanced problems of grammar and style, including syntax, morphology, semantics and stylistics. Surveys the history of the French language, including influences of other languages and cultures on its evolution. Attention given to pedagogical models and approaches as well as intensive composition practices.

### FREN5316 – MEDIEVAL AND RENAISSANCE LITERATURE AND CULTURE

3 Lecture Hours · 0 Lab Hours

A study of the main currents of French literature and culture in their social, economic and political context through the representative genres of the period: epic verse, poetry, tales, fables, comic narrative, and theatre to name a few.

### FREN5317 – 17TH AND 18TH CENTURY LITERATURE AND CULTURE

3 Lecture Hours · 0 Lab Hours

A study of the main currents of French literature and culture in their social, economic and political context through the representative genres of the period: theatre, the romance, the novel, the portrait and maxim, the philosophic dialogue and tale, among others.

### FREN5318 – 19TH AND 20TH CENTURY LITERATURE AND CULTURE

3 Lecture Hours · 0 Lab Hours

A study of the main currents of French literature and culture in their social, economic and political context through the representative genres of the period: theatre, the nouvelle, poetry, the novel, the anti-novel, etc.

### FREN5320 – TOPICS IN FRENCH LANGUAGE & LINGUISTICS

3 Lecture Hours · 0 Lab Hours

Special studies in French language and linguistics not ordinarily covered by regular course offerings. Topics may include "Socio-Phonetics," "French Phonetics and Phonology," and "History of the French Language." May be repeated for credit when content changes.

### FREN5321 – TOPICS IN GENRES OF THE 17TH CENTURY

3 Lecture Hours · 0 Lab Hours

Investigates ideology and practice through literature, the visual arts, music and other cultural "texts." Major topics may include "Versailles: Architecture, Literature, and Politics," "Jansenism and its Discontents: Pascal, Racine, de Lafayette," "Libertins: Masks and Counter Masks." May be repeated for credit when topic changes.

### **FREN5325 – TOPICS IN GENRES OF THE 18TH CENTURY**

**3** Lecture Hours · **0** Lab Hours

Studies oppositional discourse as expressed through the different genres (theatre, poetry, fiction, political and philosophical writings) popular in the 18th century as well as the role and the effect of these works in constituting the Republic of Letters. May be repeated for credit when topic changes.

### **FREN5330 – TOPICS IN GENRES OF THE 19TH CENTURY**

**3** Lecture Hours · **0** Lab Hours

Concentrates on literature, the visual arts, entertainment, and fashion as expressions of popular culture. The rise of the "petite bourgeoisie,"; social utopias, the rebuilding of Paris, and responses to modernity will be studied in such courses as "Paris and Its Subcultures," Impressionism and the Bourgeoisie," "The Novel and the Body." May be repeated for credit when topic changes.

### **FREN5331 – TOPICS IN GENRES OF THE 20TH CENTURY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the work of French and Francophone writers in the light of modernist and post-modernist aesthetics. Literature, art, architecture, music, film, video, television, and other forms of popular production are studied as reflections of an era in crisis. May be repeated for credit when topic changes.

### **FREN5338 – TOPICS IN FRENCH CULTURE**

**3** Lecture Hours · **0** Lab Hours

Survey of themes and structures on a range of topics such as "Women in/as Fiction," "Self and Society," & "Revolutions," "French Film." May be repeated for credit when topic changes.

### **FREN5391 – CONFERENCE COURSE IN FRENCH LINGUISTICS, CULTURE, OR LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Graded R. Prerequisite: permission of Graduate Advisor. Course may be repeated for credit when the topic changes.

### **FREN5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **FREN5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **FREN5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

### **FREN6310 – FRENCH STUDIES**

**3** Lecture Hours · **0** Lab Hours

## **GERM Courses**

### **GERM5101 – TEACHING PRACTICUM I**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in German in their first semester. May not be counted toward a master's degree.

### **GERM5102 – TEACHING PRACTICUM II**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in German in their second semester. May not be counted toward a master's degree.

### **GERM5304 – TOPICS IN GERMAN LANGUAGE AND LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

May include topics such as history of the German language, applied German linguistics, dialectology, Middle High German. May be repeated for credit when topic changes.

### **GERM5312 – ADVANCED GERMAN GRAMMAR AND STYLE**

**3** Lecture Hours · **0** Lab Hours

Readings of samples of contemporary German prose, both narrative and expository, as a basis for the writing of exercises and essays stressing application of grammatical and stylistic principles.

### **GERM5320 – TOPICS IN GERMAN LITERATURE**

**3** Lecture Hours · **0** Lab Hours

May include topics from any period, genre, or author of literature in German. May be repeated for credit when topic changes.

### **GERM5331 – TOPICS IN GERMAN NARRATIVE, 1700 TO PRESENT**

**3** Lecture Hours · **0** Lab Hours

The novel, Novelle, short story and other forms of German prose: historical overview, theory and selected primary texts as illustration. Topics vary in focus and methodology; emphasis ranges from individual authors, works or themes to theoretical or interdisciplinary issues. May be repeated for credit when topic changes.

### **GERM5332 – TOPICS IN OLDER GERMAN LITERATURE, TO 1700**

**3** Lecture Hours · **0** Lab Hours

Topics vary in focus and methodology; emphasis may range from individual authors, works, or themes to theoretical or interdisciplinary issues. May be repeated for credit when topic changes.

### **GERM5333 – TOPICS IN GERMAN DRAMA**

**3** Lecture Hours · **0** Lab Hours

History and theory of the drama in German-speaking countries; methods of drama analysis, interrelationship of drama, theatre, audience. Topics vary in focus and methodology, emphasis may range from individual authors, works, themes, or periods to theoretical or interdisciplinary issues. May also include the study of German film. May be repeated for credit when topic changes.

### **GERM5334 – TOPICS IN GERMAN POETRY**

**3** Lecture Hours · **0** Lab Hours

Study of the development of German poetry, and a close study of representative poets and poems from the beginnings to the present. Focus on selected poetic forms including the folk song, ballad, epic poem, sonnet, and religious and political poetry. Topics may vary in focus and methodology. May be repeated for credit when topic changes.

### **GERM5391 – CONFERENCE COURSE IN GERMANIC LINGUISTICS AND LITERATURE**

**3** Lecture Hours · **0** Lab Hours

### **GERM5398 – THESIS**

3 Lecture Hours · 0 Lab Hours

### **GERM5698 – THESIS**

6 Lecture Hours · 0 Lab Hours

### **GERM5998 – THESIS**

9 Lecture Hours · 0 Lab Hours

## **MODL Courses**

### **MODL5300 – HISTORY OF THE FRENCH LANGUAGE**

3 Lecture Hours · 0 Lab Hours

Development of the French language from its earliest forms to the present. Required for the MA in MODL with French concentration.

### **MODL5301 – MODERN LANGUAGES FOR GRADUATE READING**

3 Lecture Hours · 0 Lab Hours

An intensive one-semester course designed for Ph.D. candidates and other graduate students to fulfill departmental foreign language requirements. Sections may be offered in French, German, Russian, or other applicable or appropriate languages. Does not fulfill any graduate degree requirements.

### **MODL5302 – TOPICS ACROSS THE LANGUAGES**

3 Lecture Hours · 0 Lab Hours

This topic course varies in focus and will be taught by in-house faculty or visiting scholars. Taught in English, it will consider issues to cultural and literary concerns across the languages. Possible course offerings include: From Novel to Film, History and/as Literature, Propaganda as Literature, The History and Aesthetics of Film, The Other in Literature and Culture, Freud and the Literary Imagination, and Modernism.

### **MODL5304 – CURRENTS IN EUROPEAN AND LATIN AMERICAN LITERATURES AND THOUGHT**

3 Lecture Hours · 0 Lab Hours

An examination of the mainstream genres and movements in European and Latin American literatures from 1600 to the present. Taught in English. Required for MA students in Modern Languages. May not be repeated for credit.

### **MODL5305 – METHODS OF MODERN LANGUAGE TEACHING**

3 Lecture Hours · 0 Lab Hours

Methods of Modern Language Teaching is an applied linguistics course for modern language professionals, focusing on the application of research and theory in linguistics and second language acquisition to the classroom setting. May include specific methods, language learning strategies, cooperative language learning, component and performance skills, and intercultural communication.

### **MODL5306 – L2 ACQUISITION**

3 Lecture Hours · 0 Lab Hours

### **MODL5307 – TOPICS IN SECOND LANGUAGE ACQUISITION**

3 Lecture Hours · 0 Lab Hours

May include topics in the areas of second language acquisition, methodologies, culture, and disciplines related to second language acquisition. May be repeated for credit as topics change.

### **MODL5308 – TECHNOLOGY AND LANGUAGE INSTRUCTION**

**3** Lecture Hours · **0** Lab Hours

Presentation and critique of research regarding the use of electronic media in language instruction; emphasis on computer and video, with attention to the application of research findings to the language classroom.

### **MODL5309 – TRANSLATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Provides an introduction to basic concepts and offers a general conceptual framework for the study of translation theory. Students acquire the tools to identify, analyze and resolve translation problems while developing a rational approach to translation. (Following the completion of this course, students are encouraged to enroll in FREN 5309, GER 5309 or SPAN 5309, Practicum in Translation.)

### **MODL5310 – THEORIES OF LITERATURE AND CULTURE**

**3** Lecture Hours · **0** Lab Hours

Readings, analyses, and applications of recent literary and cultural theories. Particular attention to how such theories may serve to focus or refocus literature as cultural production. Required for the M.A. in French, German, and Spanish.

### **MODL5391 – CONFERENCE**

**3** Lecture Hours · **0** Lab Hours

## **SPAN Courses**

### **SPAN5101 – TEACHING PRACTICUM I**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in Spanish in their first semester. May not be counted toward a master's degree. Graded P/F/R

### **SPAN5102 – TEACHING PRACTICUM II**

**1** Lecture Hour · **0** Lab Hours

Required of all teaching assistants in Spanish in their second semester. May not be counted toward a master's degree. Graded P/F/R.

### **SPAN5190 – CONFERENCE COURSE IN SPANISH LANGUAGE AND LITERATURE**

**1** Lecture Hour · **0** Lab Hours

Graded P/F/R.

### **SPAN5300 – HISTORY OF THE SPANISH LANGUAGE**

**3** Lecture Hours · **0** Lab Hours

Development of the Spanish language from its earliest forms to the present. Required for the MA in Spanish and the MA in Humanities with Spanish concentration.

### **SPAN5302 – SPANISH DIALECTOLOGY**

**3** Lecture Hours · **0** Lab Hours

Phonological, lexical, and grammatical features in Iberia, South and North America, the Philippines, and in

Sephardic dialect.

### **SPAN5303 – APPLIED SPANISH LINGUISTICS**

3 Lecture Hours · 0 Lab Hours

Pedagogy, pronunciation and orthography, morphology, syntax, semantics, and culture. Required for the MA in Spanish and the MA in Humanities with Spanish concentration unless 5302 taken.

### **SPAN5310 – TOPICS IN PENINSULAR SPANISH LITERATURE AND CULTURE TO THE EIGHTEENTH CENTURY**

3 Lecture Hours · 0 Lab Hours

Topics may include: Medieval Spanish literature and culture, Golden Age Spanish literature and culture, or any particular movement, genre, work or author prior to the eighteenth century. May be repeated for credit when content changes.

### **SPAN5311 – TOPICS IN PENINSULAR SPANISH LITERATURE AND CULTURE, EIGHTEENTH CENTURY TO THE PRESENT**

3 Lecture Hours · 0 Lab Hours

Topics may include: Neoclassic peninsular Spanish literature and culture, peninsular Spanish literature and culture of the Romantic period, Realist or Naturalist Spanish literature and culture, peninsular Spanish literature and culture since 1900, as well as any particular movement, genre, work or author from the eighteenth century to the present. May be repeated for credit when content changes.

### **SPAN5313 – TOPICS IN HISPANIC LITERATURE AND CULTURE**

3 Lecture Hours · 0 Lab Hours

Special studies in areas not ordinarily covered by regular course offerings. Different topics may be repeated for credit.

### **SPAN5314 – TOPICS IN SPANISH-AMERICAN LITERATURE AND CULTURE TO MODERNISM**

3 Lecture Hours · 0 Lab Hours

Topics may include: Colonial Spanish-American literature and culture, pre-modern Spanish-American literature and culture, Spanish-American literature and culture of the Enlightenment, or any particular movement, genre, work or author prior to Modernism. May be repeated for credit when content changes.

### **SPAN5315 – TOPICS IN CONTEMPORARY SPANISH-AMERICAN LITERATURE AND CULTURE, MODERNISM TO THE PRESENT**

3 Lecture Hours · 0 Lab Hours

Topics may include: Spanish-American literature and culture of Modernism, modern Spanish-American literature and culture, or any particular movement, genre, work or author from Modernism to the present. May be repeated for credit when content changes.

### **SPAN5317 – U.S. LATINO LITERATURE AND CULTURE**

3 Lecture Hours · 0 Lab Hours

Readings of poetry, theater, and prose in relation to the specific socio-historical and political context of U.S. Latino life. Charts changing concepts of cultural identity and the evolution of cultural coding in texts written after 1960.

### **SPAN5318 – MEXICAN LITERATURE AND CULTURE**

3 Lecture Hours · 0 Lab Hours

Readings in all Mexican literary genres from various critical perspectives. Particular attention given to the novel, poetry, and essay of the 20th Century and to interrelationships between text and culture.

### **SPAN5320 – TOPICS IN SPANISH LINGUISTICS**

**3** Lecture Hours · **0** Lab Hours

Special studies in linguistics not ordinarily covered by regular course offerings. May be repeated for credit when content changes.

### **SPAN5327 – WOMEN IN HISPANIC LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Readings of literary texts by women writers from medieval Spain to contemporary Spanish America. Attention to recurrent motifs as well as to the literary expression of historical and cultural transformation.

### **SPAN5330 – ADVANCED STUDIES IN SPANISH LINGUISTICS I**

**3** Lecture Hours · **0** Lab Hours

Topics may include: sociolinguistics, bilingualism, modern Spanish dialectology, as well as a detailed study on any one dialect or regional dialect of contemporary Spanish. May be repeated for credit when content changes.

### **SPAN5332 – ADVANCED STUDIES IN SPANISH LINGUISTICS II**

**3** Lecture Hours · **0** Lab Hours

Topics may include: Old Spanish, Spanish philology, Spanish text linguistics, and Old Spanish dialectology, as well as a detailed study of any one dialect or regional dialect of Spanish. May be repeated for credit when content changes.

### **SPAN5366 – SPANISH FOR SCHOOL ADMINISTRATORS AND TEACHERS**

**3** Lecture Hours · **0** Lab Hours

Development of Spanish proficiency for teachers and administrators through an immersion approach. Emphasis on concepts and terminology related to education, program administration, community involvement and communication with Spanish-speaking parents. This course can be repeated.

### **SPAN5391 – CONFERENCE COURSE IN SPANISH LINGUISTICS AND LITERATURE**

**3** Lecture Hours · **0** Lab Hours

Graded R.

### **SPAN5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **SPAN5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **SPAN5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Music

College of Liberal Arts

### Chair Rick Bogard

Web [www.uta.edu/music/](http://www.uta.edu/music/)

Email [music@uta.edu](mailto:music@uta.edu)

Phone 817.272.3471

Fax 817.272.3434

101 Fine Arts Bldg

---

### Degrees / Certificates

#### Master's Degrees

Music Performance, M.M. Non Thesis

Music Performance, M.M. Thesis

Music, M.M.

#### Certificates

Performance Certificate

Performance-CT KBS (Organ)

Performance-CT KBS (Piano)

Performance-CTKBS(Harpsichord)

---

### Graduate Faculty

[Sarah Frisof](#)

[David Grogan](#)

#### Department Chair

[Rick Bogard](#)

#### Professor

[John Burton](#)

[Linton Powell](#)

[Jing Tam](#)

#### Associate Professor

[Daniel Cavanagh](#)

[George Chave](#)

[Sergio Espinosa](#)

[Graham Hunt](#)

[Timothy Ishii](#)

[Carol Jessup](#)

[Karen Kenaston-French](#)

[Soo Kim](#)

[Diane Lange](#)

[John Solomons](#)

[Douglas Stotter](#)

[Michael Varner](#)

**Martha Walvoord**

**Assistant Professor**

**Sean Atkinson**  
**Young-Hyun Cho**  
**Clifton Evans**  
**Christopher Pool**

---

## Graduate Advisors

**Clifton Evans**

*Music Performance, M.M. Thesis*  
*Music, M.M.*

---

## Department Information

### Courses

# Department Information

## Music Education

- **Degree Requirements - Master of Music in Music Education**
- **Admission**

## Master of Music in Music Performance

- **Admission Requirements**

## Certificate in Performance

- **Certificate Admission Requirements**
- **TOEFL Requirement**

## Fellowships

## Final Master's Examination

## Music Education

The Master of Music in Music Education curriculum is designed to impart the knowledge needed to facilitate successful careers and encourage personal development. Through further education, music teachers will become more articulate, reflective practitioners so that they are able to select, adapt, adjust, and assess teaching and learning expectations.

More specifically, the aims of the degree are to:

- improve teaching skills through advanced coursework and research;
- offer graduate courses to improve general musicianship, including performance, theory, and music history;
- prepare students to enter graduate programs leading to the doctoral degree;
- offer highly specialized courses for students interested in researching historical, education or artistic areas;
- provide advanced courses for qualified members of the community.

## Degree Requirements - Master of Music in Music Education

The program is designed for the student who has a Bachelor's degree in music. A person with a bachelor degree in a major other than music must have the equivalent of 18 hours of upper level music courses and may be asked to complete a Music Theory Barrier exam. The Graduate Advisor for program studies will counsel the student in correcting deficiencies and selecting courses for the student's degree program. A minimum of 30 semester hours is required if the student chooses to write a thesis. If the student chooses not to write a thesis, a minimum of 36 semester hours is required. Advisory examinations in music history and written theory will be administered to all students prior to enrollment or during their first semester as a degree-seeking student.

Coursework for the program includes 15 core hours: Form and Style Analysis (MUSI 5301); one class from Selected Topics in Music History (MUSI 5308); Philosophical Foundations of Music Education (MUSI 5351); and Psychological Foundations of Music Education (MUSI 5352); and Introduction to Music Research (MUSI 5363). Students following the thesis option will take three hours of music education electives and an additional six hours of free choice electives. Students following the non-thesis option will take six hours of music education electives and an additional 12 hours of free choice electives.

Music education electives may be chosen from the following: Selected Topics in Music Pedagogy (MUSI 5350); Current Trends in Music Education (MUSI 5331); Selected Topics in Music Literature (MUSI 5354); Rehearsal Techniques (MUSI 5355); Advanced Diction for Singers (MUSI 5359); Advanced Technology for Musicians (MUSI 5350); Elementary Music (MUSI 5361); and Historical Foundations and Curricular Trends in Music Education (MUSI 5364). Free choice electives may be selected from ensembles, private instruction, music history, music theory, jazz studies and repeated special topics courses. Up to six hours of graduate credit from other disciplines may be considered if relevant to the degree, subject to approval by the Graduate Studies Committee. Students following the non-thesis option will enroll in at least one semester of Project in Music Education (MUSI 5353). Students who choose to write a thesis (MUSI 5398, 5698) will work closely with one or more members of the graduate faculty from the Department of Music on a research project in a specialized area of interest within the music education field.

### Admission

The Department of Music has the following requirements for entry into the Master of Music in Music Education Degree.

#### Unconditional Admission

Requirements for unconditional admission into the program are:

1. Three letters of recommendation speaking to the student's potential for success from references familiar with the student's academic background.
2. A minimum 3.0 GPA in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. Bachelor's degree in music or its demonstrated equivalent.

#### Probationary Status

A student meeting two out of three criteria and showing promise for successful graduate study may still be admitted on probationary status upon the recommendation of the Graduate Studies Committee. Within probationary status, said student will be admitted unconditionally into the degree program upon completion of 12 hours of graduate study with no grade lower than a B.

#### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

#### Deferred Admission

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

Admission will be denied for students not meeting at least two of the three criteria. Applicants may reapply for admission if the deficiencies in credentials that led to denial are remedied.

### **TOEFL Requirement**

Applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL) or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:

- Writing: 22
- Speaking: 21
- Reading: 20
- Listening: 16

**Those who do not meet the English proficiency requirement must satisfactorily complete courses in the ESOL area, as approved by the program and the Graduate School.**

## **Master of Music in Music Performance**

Majors are offered in Instrumental Studies, Voice Studies, Jazz Studies, and Conducting. The program is designed for the student who has a Bachelor's degree in music. A person with a bachelor degree in a major other than music must have the equivalent of 18 hours of upper level music courses and must score a 75% or better on the Music Theory Barrier exam. The Graduate Advisor for program studies will counsel the student in correcting deficiencies and selecting courses for the student's degree program. Advisory examinations in music history and written theory can be administered to all students prior to enrollment or during their first semester as a degree-seeking student.

Coursework for the program includes 28 core hours: Form and Style Analysis (MUSI 5301); Selected Topics in Music History (MUSI 5308); Selected Topics in Music Literature (MUSI 5354); Introduction to Music Research (MUSI 5363); 4 semesters of Applied Study (MUSI 53XX) with the last semester including a full length recital; and 4 semesters of a Major Ensemble (MUSI 51XX).

The coursework also includes 6 credit hours of electives to be chosen from the following depending on your major:

### **Instrumental**

*Prescribed Electives (choose 6 credit hours)*

- MUSI 3394 - Digital Music Technology
- MUSI 5112 - Chamber Music (maximum of 3 repeats)
- MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)
- MUSI 5350 - Selected Topics in Music Pedagogy
- MUSI 5351 - Philosophical Foundations of Music Education
- MUSI 5352 - Psychological Foundations of Music Education
- MUSI 3326 - Post-Tonal Analysis
- MUSI 3390 - Schenkerian Analysis
- MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)
- MUSI 4490 - 20th-Century Form and Technique

## Voice

### *Prescribed Electives (choose 6 credit hours)*

MUSI 5359 - Advanced Diction for Singers  
MUSI 5205 - Opera/Theatre Lab  
MUSI 3394 - Digital Music Technology  
MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)  
MUSI 5350 - Selected Topics in Music Pedagogy  
MUSI 5351 - Philosophical Foundations of Music Education  
MUSI 5352 - Psychological Foundations of Music Education  
MUSI 3326 - Post-Tonal Analysis  
MUSI 3390 - Schenkerian Analysis  
MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)  
MUSI 4490 - 20th-Century Form and Technique

## Jazz

### *Prescribed Electives (choose 6 credit hours)*

MUSI 5110 - Jazz Combo  
MUSI 5366 - Jazz Styles and Analysis  
MUSI 5355 - Rehearsal Techniques  
MUSI 5360 - Advanced Technology for Musicians  
MUSI 3394 - Digital Music Technology  
MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)  
MUSI 5350 - Selected Topics in Music Pedagogy  
MUSI 5351 - Philosophical Foundations of Music Education  
MUSI 5352 - Psychological Foundations of Music Education  
MUSI 3326 - Post-Tonal Analysis  
MUSI 3390 - Schenkerian Analysis  
MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)  
MUSI 4490 - 20th-Century Form and Technique

## Conducting

### *Prescribed Electives (choose 6 credit hours)*

MUSI 3394 - Digital Music Technology  
MUSI 5355 - Rehearsal Techniques  
MUSI 5359 - Advanced Diction for Singers  
MUSI 5112 - Chamber Music (maximum of 3 repeats)  
MUSI 5308 - Selected Topics in Music History (may be counted once as an elective if core requirement is met and the course is taken with a different emphasis)  
MUSI 5350 - Selected Topics in Music Pedagogy  
MUSI 5351 - Philosophical Foundations of Music Education  
MUSI 5352 - Psychological Foundations of Music Education  
MUSI 3326 - Post-Tonal Analysis  
MUSI 3390 - Schenkerian Analysis  
MUSI 3391 - Advanced Sonata Theory (recommended only after taking 5301-Form and Style Analysis)  
MUSI 4490 - 20th-Century Form and Technique

## Admission Requirements

### Unconditional Admission

1. Bachelor's degree in music or its demonstrated equivalent (such as music conservatory

degree, a bachelor's degree in some other discipline with substantial undergraduate hours in music, etc.). A person with a bachelor degree in a major other than music must have the equivalent of 18 hours of upper level music courses and may be asked to complete a Music Theory Barrier exam. Three letters of recommendation are required, speaking to the student's potential for success from references familiar with the student's academic background.

2. A minimum 3.0 GPA in the last 60 hours of undergraduate work as calculated by the Graduate School.
3. Applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL), or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:
  - Writing: 22
  - Speaking: 21
  - Reading: 20
  - Listening: 16

**Those who do not meet the English proficiency requirement must satisfactorily complete courses in the ESOL area, as approved by the program and the Graduate School.**

4. Applicants must audition (in person or by submitting a tape) with repertoire of at least college senior recital level. A repertoire list must be submitted for evaluation at the time of the audition. For further information contact the Graduate Advisor.

All admission criteria will be considered equally. Students meeting all four criteria will be granted unconditional admission.

### **Probationary Status**

A student not meeting the above criteria but who shows promise for successful graduate study may be admitted probationally. This period of probation is not to exceed one semester and the conditions of probation must be resolved during the first semester. The conditions will be in the offer letter of admission. (The Music department does not have the authority to lower University TOEFL score requirements for any student.)

### **Provisional Admission**

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferred Admission**

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

## **Certificate in Performance**

The Certificate in Performance requires 15 hours of coursework and is currently available only in Keyboard Studies: nine hours of applied study (MUSI 5392), a three-credit-hour recital (MUSI 5391) and three hours of keyboard accompaniment (MUSI 5170).

### **Certificate Admission Requirements**

Students wishing to enroll only in the certificate program but not a graduate degree program may apply for admission to U.T. Arlington as a special student (non-degree seeking). Admission requires a bachelor's degree or equivalent and would be contingent upon an audition for a

minimum of two faculty members; GRE scores and letters of recommendation are not required. Students in this certificate program who later seek graduate degrees at U.T. Arlington may apply 12 hours of certificate coursework within six years of completion and award of the certificate, if they meet the admission requirements for the graduate degree and receive approval from the appropriate Graduate Studies Committee and the Dean of Graduate Studies. Admission as a special student in no way guarantees subsequent unconditional admission into a graduate program or into the Graduate School.

### TOEFL Requirement

Applicants whose native language is not English must demonstrate proficiency in English by earning a score of at least 550 on the paper-based Test of English as a Foreign Language (TOEFL) or a score of at least 213 on the computer-based test, or a minimum score of 40 on the Test of Spoken English (TSE). The Internet-based TOEFL examination (TOEFL iBT) will be accepted as an alternative to the paper and computer-based TOEFL for admission purposes. Students taking TOEFL iBT must attain a minimum total test score of 79 and meet or exceed the following scores on each of the sections of the test:

- Writing: 22
- Speaking: 21
- Reading: 20
- Listening: 16

### Fellowships

Fellowships, when available, will be awarded on a competitive basis. The Graduate Advisor should be notified of your interest in these fellowships at the time of your application. Nominees for the Graduate School Master's Fellowship in Music will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 9 hours of enrollment in both long semesters to retain their fellowships.
- The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in music from an accredited institution (or its demonstrated equivalent).
- Three letters of recommendation

The Department has a limited number of [Enhanced Graduate Teaching Assistantships](#) available. In addition to the requirements above, applicants for the EGTA positions must adhere to the following:

- A live audition is strongly encouraged whenever possible. (Performance Majors only)
- An interview, either in person or by phone, must be conducted by the Graduate Committee or a subset thereof.
- The Chair of the Department must be present at the audition and/or the interview.

### Final Master's Examination

A final program examination is required of all Music Education degree candidates. A final Master's examination may result in:

1. An unconditional pass with a recommendation to the Graduate Dean that the candidate be certified to receive the degree.
2. A conditional pass with the requirement that additional conditions be met, which may include further work on the thesis or thesis substitute, additional coursework with a minimum specified grade point average or both (in all cases the final master's examination must be repeated within a specified period).



3. Failure, with permission to be re-examined within a specified period; or
4. Failure, with recommendation to the Dean of Graduate Studies that the candidate be dismissed from the program. The Music Department limits to 2 the number of times the examination can be taken.

## MUSI Courses

### MUSI5100 – WIND SYMPHONY

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5101 – SYMPHONIC WINDS

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5102 – A CAPELLA CHOIR

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5103 – CHAMBER SINGERS

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5104 – UNIVERSITY SINGERS

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5106 – KEYBOARD ENSEMBLE

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5107 – JAZZ ORCHESTRA

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5108 – JAZZ ENSEMBLE

1 Lecture Hour · 0 Lab Hours

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### MUSI5109 – VOCAL JAZZ



**1 Lecture Hour · 0 Lab Hours**

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### **MUSI5110 – JAZZ COMBO**

**1 Lecture Hour · 0 Lab Hours**

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### **MUSI5111 – ORCHESTRA**

**1 Lecture Hour · 0 Lab Hours**

The schedule of classes indicates which ensembles are offered each semester. Prerequisite: Approval of the ensemble director.

### **MUSI5112 – CHAMBER MUSIC**

**1 Lecture Hour · 0 Lab Hours**

This course is an in-depth study of the repertoire of standard chamber ensembles such as string quartets and piano trios, woodwind quintets and brass quintets. Weekly coaching with professors culminates in a public performance where students demonstrate skills in music performance. Prerequisite: Approval of Ensemble Director.

### **MUSI5120 – PRIVATE LESSONS IN VOICE**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in voice. This course may be repeated for credit as often as course content changes.

### **MUSI5121 – PRIVATE LESSONS IN PIANO**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in piano. This course may be repeated for credit as often as course content changes.

### **MUSI5122 – PRIVATE LESSONS IN ORGAN**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in organ. This course may be repeated for credit as often as course content changes.

### **MUSI5123 – PRIVATE LESSONS IN HARPSICHORD**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in harpsichord. This course may be repeated for credit as often as course content changes.

### **MUSI5124 – PRIVATE LESSONS IN JAZZ PIANO**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in jazz piano. This course may be repeated for credit as often as course content changes.

### **MUSI5125 – PRIVATE LESSONS IN VIOLIN**

**2 Lecture Hours · 0 Lab Hours**

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.

### **MUSI5126 – PRIVATE LESSONS IN VIOLA**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.

### **MUSI5127 – PRIVATE LESSONS IN CELLO**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in cello. This course may be repeated for credit as often as course content changes.

### **MUSI5128 – PRIVATE LESSONS IN BASS**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in bass. This course may be repeated for credit as often as course content changes.

### **MUSI5129 – PRIVATE LESSONS IN JAZZ BASS**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in jazz bass. This course may be repeated for credit as often as course content changes.

### **MUSI5130 – PRIVATE LESSONS IN GUITAR**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in guitar. This course may be repeated for credit as often as course content changes.

### **MUSI5131 – PRIVATE LESSONS IN CLARINET**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in clarinet. This course may be repeated for credit as often as course content changes.

### **MUSI5132 – PRIVATE LESSONS IN OBOE**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in oboe. This course may be repeated for credit as often as course content changes.

### **MUSI5133 – PRIVATE LESSONS IN FLUTE**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in flute. This course may be repeated for credit as often as course content changes.

### **MUSI5134 – PRIVATE LESSONS IN SAXOPHONE**

3 Lecture Hours · 0 Lab Hours

This course provides private instruction in saxophone. This course may be repeated for credit as often as course content changes.

### **MUSI5135 – PRIVATE LESSONS IN BASSOON**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in bassoon. This course may be repeated for credit as often as

course content changes.

### **MUSI5136 – PRIVATE LESSONS IN TRUMPET**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5137 – PRIVATE LESSONS IN FRENCH HORN**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5138 – PRIVATE LESSONS IN TROMBONE**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in trombone. This course may be repeated for credit as often as course content changes.

### **MUSI5139 – PRIVATE LESSONS IN TUBA**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in tuba. This course may be repeated for credit as often as course content changes.

### **MUSI5140 – PRIVATE LESSONS IN EUPHONIUM**

2 Lecture Hours · 0 Lab Hours

This course provides private instruction in euphonium. This course may be repeated for credit as often as course content changes.

### **MUSI5190 – KEYBOARD ACCOMPANIMENT**

1 Lecture Hour · 0 Lab Hours

This course entails the student accompanying performances as specified and supervised by the instructor.

### **MUSI5191 – CONFERENCE COURSE IN MUSIC**

1 Lecture Hour · 0 Lab Hours

Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: permission of instructor and Graduate Advisor.

### **MUSI5205 – MUSIC THEATRE/OPERA LAB**

2 Lecture Hours · 0 Lab Hours

Exploration of opera roles, staging techniques, and repertoire. Prerequisite: Approval of the ensemble director.

### **MUSI5220 – PRIVATE LESSONS IN VOICE**

3 Lecture Hours · 0 Lab Hours

This course provides private instruction in voice. This course may be repeated for credit as often as course content changes.

### **MUSI5221 – PRIVATE LESSONS IN PIANO**

3 Lecture Hours · 0 Lab Hours

This course provides private instruction in piano. This course may be repeated for credit as often as course

content changes.

### **MUSI5222 – PRIVATE LESSONS IN ORGAN**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in organ. This course may be repeated for credit as often as course content changes.

### **MUSI5223 – PRIVATE LESSONS IN HARPSICHORD**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in harpsichord. This course may be repeated for credit as often as course content changes.

### **MUSI5224 – PRIVATE LESSONS IN JAZZ PIANO**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz piano. This course may be repeated for credit as often as course content changes.

### **MUSI5225 – PRIVATE LESSONS IN VIOLIN**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.

### **MUSI5226 – PRIVATE LESSONS IN VIOLA**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in viola. This course may be repeated for credit as often as course content changes.

### **MUSI5227 – PRIVATE LESSONS IN CELLO**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in cello. This course may be repeated for credit as often as course content changes.

### **MUSI5228 – PRIVATE LESSONS IN BASS**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in bass. This course may be repeated for credit as often as course content changes.

### **MUSI5229 – PRIVATE LESSONS IN JAZZ BASS**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz bass. This course may be repeated for credit as often as course content changes.

### **MUSI5230 – PRIVATE LESSONS IN GUITAR**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in guitar. This course may be repeated for credit as often as course content changes.

### **MUSI5231 – PRIVATE LESSONS IN CLARINET**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in clarinet. This course may be repeated for credit as often as course content changes.

### **MUSI5232 – PRIVATE LESSONS IN OBOE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in oboe. This course may be repeated for credit as often as course content changes.

### **MUSI5233 – PRIVATE LESSONS IN FLUTE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in flute. This course may be repeated for credit as often as course content changes.

### **MUSI5234 – PRIVATE LESSONS IN SAXOPHONE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in saxophone. This course may be repeated for credit as often as course content changes.

### **MUSI5235 – PRIVATE LESSONS IN BASSOON**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in bassoon. This course may be repeated for credit as often as course content changes.

### **MUSI5236 – PRIVATE LESSONS IN TRUMPET**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5237 – PRIVATE LESSONS IN FRENCH HORN**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in French Horn. This course may be repeated for credit as often as course content change.

### **MUSI5238 – PRIVATE LESSONS IN TROMBONE**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in trombone. This course may be repeated for credit as often as course content changes.

### **MUSI5239 – PRIVATE LESSONS IN TUBA**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in tuba. This course may be repeated for credit as often as course content changes.

### **MUSI5240 – PRIVATE LESSONS IN EUPHONIUM**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in euphonium. This course may be repeated for credit as often as course content changes.

### **MUSI5241 – PRIVATE LESSONS IN PERCUSSION**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in percussion. This course may be repeated for credit as often as course content changes.

### **MUSI5242 – PRIVATE LESSONS IN IMPROVISATION**

**3** Lecture Hours · **0** Lab Hours

This course provides private instruction in improvisation. This course may be repeated for credit as often as course content changes.

### **MUSI5291 – CONFERENCE COURSE IN MUSIC**

**2** Lecture Hours · **0** Lab Hours

Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: permission of instructor and Graduate Advisor.

### **MUSI5301 – FORM AND STYLE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A survey of the forms and styles of Western art music employing relevant analytical techniques.

### **MUSI5302 – THEORY & COMPOSITION SPECIAL TOPICS**

**3** Lecture Hours · **0** Lab Hours

This course covers topics which vary from semester to semester, and includes in-depth study of selected topics in music theory. This course may be repeated for credit as often as the content changes. (Formerly MUSI 5330.)

### **MUSI5308 – MUSIC HISTORY SELECTED TOPICS**

**3** Lecture Hours · **0** Lab Hours

This course will consist of an in-depth study of a particular genre, composer, or period. It may be repeated as the course content changes.

### **MUSI5320 – PRIVATE LESSONS IN VOICE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in voice. This course may be repeated for credit as often as course content changes.

### **MUSI5321 – PRIVATE LESSONS IN PIANO**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in piano. This course may be repeated for credit as often as course content changes.

### **MUSI5322 – PRIVATE LESSONS IN ORGAN**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in organ. This course may be repeated for credit as often as course content changes.

### **MUSI5323 – PRIVATE LESSONS IN HARPSICHORD**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in harpsichord. This course may be repeated for credit as often as course content changes.

### **MUSI5324 – PRIVATE LESSONS IN JAZZ PIANO**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz piano. This course may be repeated for credit as often as course content changes.

### **MUSI5325 – PRIVATE LESSONS IN VIOLIN**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in violin. This course may be repeated for credit as often as course content changes.

### **MUSI5326 – PRIVATE LESSONS IN VIOLA**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in viola. This course may be repeated for credit as often as course content changes.

### **MUSI5327 – PRIVATE LESSONS IN CELLO**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in cello. This course may be repeated for credit as often as course content changes.

### **MUSI5328 – PRIVATE LESSONS IN BASS**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in bass. This course may be repeated for credit as often as course content changes.

### **MUSI5329 – PRIVATE LESSONS IN JAZZ BASS**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in jazz bass. This course may be repeated for credit as often as course content changes.

### **MUSI5332 – PRIVATE LESSONS IN OBOE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in oboe. This course may be repeated for credit as often as course content changes.

### **MUSI5333 – PRIVATE LESSONS IN FLUTE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in flute. This course may be repeated for credit as often as course content changes.

### **MUSI5334 – PRIVATE LESSONS IN SAXOPHONE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in saxophone. This course may be repeated for credit as often as course content changes.

### **MUSI5335 – PRIVATE LESSONS IN BASSOON**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in bassoon. This course may be repeated for credit as often as course content changes.

### **MUSI5336 – PRIVATE LESSONS IN TRUMPET**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in trumpet. This course may be repeated for credit as often as course content changes.

### **MUSI5337 – PRIVATE LESSONS IN FRENCH HORN**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in French Horn. This course may be repeated for credit as often as course content changes.

### **MUSI5338 – PRIVATE LESSONS IN TROMBONE**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in trombone. This course may be repeated for credit as often as course content changes.

### **MUSI5339 – PRIVATE LESSONS IN TUBA**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in tuba. This course may be repeated for credit as often as course content changes.

### **MUSI5340 – PRIVATE LESSONS IN EUPHONIUM**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in euphonium. This course may be repeated for credit as often as course content changes.

### **MUSI5341 – PRIVATE LESSONS IN PERCUSSION**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in percussion. This course may be repeated for credit as often as course content changes.

### **MUSI5342 – PRIVATE LESSONS IN IMPROVISATION**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in improvisation. This course may be repeated for credit as often as course content changes.

### **MUSI5343 – PRIVATE LESSONS IN GUITAR**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in guitar. This course may be repeated for credit as often as course content changes.

### **MUSI5344 – PRIVATE LESSONS IN CLARINET**

**5** Lecture Hours · **0** Lab Hours

This course provides private instruction in clarinet. This course may be repeated for credit as often as course content changes.

### **MUSI5350 – SELECTED TOPICS IN MUSIC PEDAGOGY**

**3** Lecture Hours · **0** Lab Hours

This course covers topics which vary from semester to semester and includes studies of teaching techniques applied to pre-K, elementary grades, the junior high school, the high school, the junior college, and the college or university. This course may be repeated for credit as often as the content changes.



### **MUSI5351 – PHILOSOPHICAL FOUNDATIONS OF MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

Study in the philosophy of music education.

### **MUSI5352 – PSYCHOLOGICAL FOUNDATIONS OF MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

A study of the psychological foundations of music education. An investigation of topics such as perception of and responses to music, the nature of musical attributes, music learning, and the measurement of musical behavior.

### **MUSI5353 – PROJECT IN MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

For students enrolled in the non-thesis option. Offers the opportunity to complete a professional project in music education relevant to the student's background, interest, and/or needs. The project should include, but not necessarily be limited to, appropriate written documentation. May be repeated for credit, but not more than 3 hours will apply to the Master of Music degree. Enrollment is required each term in which the project is in progress.

### **MUSI5354 – SELECTED TOPICS IN MUSIC LITERATURE**

**3** Lecture Hours · **0** Lab Hours

This course covers topics which vary from semester to semester and includes studies in musical literature for the following: 1) Wind Band Literature; 2) Orchestral Literature; 3) Choral Literature; 4) World Music Literature; 5) Jazz Literature. This course may be repeated for credit as often as the content changes.

### **MUSI5355 – REHEARSAL TECHNIQUES**

**3** Lecture Hours · **0** Lab Hours

A study of rehearsal techniques, including tone development, phrasing, rehearsal score study, and rehearsal organization. Topics, which may vary by semester, are 1) Choral; 2) Instrumental; 3) Jazz. May be repeated for credit when topics vary. Topics may be taken concurrently.

### **MUSI5356 – ORCHESTRAL EXCERPTS**

**3** Lecture Hours · **0** Lab Hours

Study of orchestral excerpts for individual instruments. Topics will vary by semester. May be repeated for credit. Permission of instructor required.

### **MUSI5359 – ADVANCED DICTION FOR SINGERS**

**3** Lecture Hours · **0** Lab Hours

A study of performance diction for singers and the pronunciation of the language as it applies to public performance. Topics include English, French, Italian, and German. May be repeated for credit when topics vary.

### **MUSI5360 – ADVANCED TECHNOLOGY FOR MUSICIANS**

**0** Lecture Hours · **3** Lab Hours

Intensive and extensive student-centered study topics to be selected from MIDI sequencing, multimedia development, advanced music notation and digital sampling and synthesis.

### **MUSI5361 – ELEMENTARY MUSIC**

**3** Lecture Hours · **0** Lab Hours

A study of current methods and materials used in teaching elementary music. Classroom instruments are also studied.

### **MUSI5362 – INTRODUCTION TO RESEARCH IN MUSIC**

**3** Lecture Hours · **0** Lab Hours

An introduction to the methods and materials of research in music, including instruction on appropriate style formats for papers and theses.

### **MUSI5363 – RESEARCH IN MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

An introduction to historical, philosophical, descriptive, and experimental research in music education and present research practices in music education.

### **MUSI5364 – HISTORICAL FOUNDATIONS AND CURRICULAR TRENDS IN MUSIC EDUCATION**

**3** Lecture Hours · **0** Lab Hours

A study of the historical foundations of music education and curricular trends that provide the context for contemporary music education.

### **MUSI5365 – MEANING & REPRESENTATION IN MUSIC**

**3** Lecture Hours · **0** Lab Hours

This course will explore the basic questions of meaning in music, including the question of whether or not music can truly have meaning at all. Students will explore various philosophical, scientific, and musical (i.e. from composers and performers) viewpoints through readings, discussion, and writing.

### **MUSI5366 – JAZZ STYLE AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An in depth examination of the improvisational techniques used by prominent jazz musicians. Topics will include transcription and theoretical analysis over different periods and styles in jazz.

### **MUSI5391 – CONFERENCE COURSE IN MUSIC**

**3** Lecture Hours · **0** Lab Hours

Special problems in music. Topic may change from semester to semester. May be repeated for credit. Prerequisite: Permission of instructor and Graduate Advisor.

### **MUSI5393 – CONDUCTING**

**3** Lecture Hours · **0** Lab Hours

Applied lessons in conducting. This course is an in-depth study of conducting technique as applied to choral or instrumental ensembles. It may be repeated for credit as the content changes.

### **MUSI5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

The graduate student must be registered for 5398 when in consultation over the thesis with the advisor or supervisory committee.

### **MUSI5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

The graduate student must be registered for 5698 in the semester or term in which the Master of Music degree will be conferred.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
    - Art + Art History
    - Communication
    - Criminology & Criminal Justice
    - English
    - History
    - Humanities
    - Modern Languages
    - Linguistics
    - Music
    - Philosophy & Humanities
    - Political Science
    - Sociology and Anthropology
    - Theatre Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Political Science

College of Liberal Arts

### Chair **Rebecca Deen**

Web [www.uta.edu/pols/](http://www.uta.edu/pols/)

Phone 817.272.2991

Fax 817.272.2525

**206 University Hall**

### Degrees / Certificates

#### Master's Degrees

Political Science, M.A.

### Graduate Faculty

#### Senior Vice Provost

**Michael Moore**

#### Professor

**Mark Cichock**  
**Victoria Farrar-Myers**  
**Jose Gutierrez**  
**Susan Hekman**  
**Joseph Ignagni**  
**Thomas Marshall**  
**Dale Story**

#### Associate Professor

**Brent Boyea**  
**Jill Clark**  
**Rebecca Deen**  
**Allan Saxe**

#### Assistant Professor

**Aytem Bayram**  
**Heidi Hardt**  
**Brent Sasley**  
**Daniel Sledge**

#### Associate Adjunct Professor

**Thomas Little**

#### Professor Emeritus

**Allan Butcher**

#### Senior Lecturer

**Larry Carter**

---

## Graduate Advisors

**Brent Sasley**  
*Political Science, M.A.*

---

## Department Information

### Courses

# Department Information

## Objective

### Admissions and Fellowship Criteria

- **Probationary Status**
- **Provisional Admission**
- **Deferral**
- **Denial**
- **Fellowships**

### Degree Requirements

- **International Studies Option**
- **U.S. Political Institutions and Processes Option**

### Dual Degree Program

## Objective

The program leading to a Master of Arts degree in Political Science emphasizes preparation for service in many areas of our national life, both public and private. Students interested in careers in teaching and research or in leadership roles in the public or private sectors may pursue programs adapted to their individual objectives. The Department of Political Science endeavors to equip students with the research techniques and substantive background for coursework undertaken beyond the master's level. Particular attention is given to newer methodologies and approaches employed by scholars in the field.

## Admissions and Fellowship Criteria

The program is committed to a holistic admissions approach. As a result, admissions criteria include: grade point averages, letters of recommendation, personal statements, advanced degrees, graduate courses taken as a degreed student or in another program, and professional work experience. The major purpose of the admissions criteria is to promote access to our program, but maintain standards that will enable the department to determine if the applicant demonstrates the requisite skill level to master the requirements of the program.

Admission to the M.A. program in political science is based upon the completion of the general admission requirements of the Graduate School. Applicants are required to submit all official transcripts, a personal statement, and three (3) letters of recommendation. The department will review the application package in its entirety. The package is evaluated to determine if a student has achieved a 3.00 grade point average (GPA) in the last 60 hours of their undergraduate work

as calculated by the Graduate School, and meets other admission requirements. If a student has already earned an advanced degree, the department will evaluate the student's academic performance in obtaining that degree equally with the undergraduate performance. International students must meet or exceed the minimum university standard on the TOEFL (550 for paper examination, 213 for computer examination), TOEFL iBT (total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section), TSE (40), or the IELTS (6.5).

The criteria for admission below are used, without specific weights, as positive indicators of potential success in the program. All four criteria for unconditional admission must be met in order to receive unconditional admission.

1. A bachelor's degree from an accredited general or specific program. A bachelor's degree in political science, however, is not required.
2. An undergraduate GPA of 3.00 or greater (as calculated by the Graduate School) in the last 60 credit hours of completing an undergraduate B.A. or B.S. degree from an accredited institution (verified by the Graduate School from official transcripts from each college or university previously attended).
3. A written statement (200 words) explaining the applicant's reasons for graduate study in political science.
4. Three letters of recommendation (including at least two from university/college faculty) mailed directly from the recommenders to the graduate advisor of political science. Letters of recommendation must favorably assess the applicant's potential success in a graduate program and in the field of political science.

### Probationary Status

Students who do not qualify for unconditional admission may be considered for probationary admission if they satisfy any 3 of the 4 criteria for unconditional admission. Students with a reported grade point average below 2.70, however, will not be eligible for probationary admission. Being admitted on probationary status means that the student will be able to take graduate level classes, but the student must earn a B or better in their first 12 hours of graduate coursework at UT Arlington. This regulation will be strictly enforced.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline, but otherwise appears to meet admission requirements, may be granted provisional admission. Provisionally admitted students must adequately satisfy any incomplete documentation by the end of the semester in which they are admitted. If the applicant fails to do so, the Department may then reclassify the applicant's admission status as probationary or ask the student to leave the program.

### Deferral

A deferred decision may be granted when a file is incomplete or when a denial decision is not appropriate.

### Denial

If two or more of the aforementioned criteria for unconditional admission have not been met with satisfaction or the applicant's grade point average is below 2.70, the candidate will be denied admission.

### Fellowships

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Graduate School Master's Fellowship in the Political Science master's program will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.

- The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate credit hours.
- Transcript of a completed bachelor's degree in Political Science (or appropriate related field) from an accredited institution.
- Three letters of recommendation. These letters may be the same submitted for admission.
- A written statement explaining the applicant's reasons for graduate study in Political Science.

## Degree Requirements

The thesis degree plan requires 24 hours of coursework including three hours of methods in Political Science for those who have not had POLS 3310 or its equivalent. Of the remaining 21 hours, at least one course each must be taken from four of the following five areas:

- Political Behavior and Processes: 5300, 5311, 5315, 5316, 5317, 5318, 5319, 5320, 5321, 5322, 5380.
- Comparative Politics: 5303, 5331, 5333, 5335, 5336, 5337, 5381.
- International Politics and Organization: 5332, 5334, 5338, 5339, 5341, 5342, 5384.
- Public Law and Jurisprudence: 5301, 5323, 5382.
- Public Administration and Policy Studies: 5302, 5324, 5325, 5326, 5327, 5328, 5329, 5330, 5368, 5369, 5383.

Additional courses may also be taken in the area of political theory, but other than the methods requirement (POLS 5310) that area is not required for the thesis or non-thesis degree plans. Elective courses in political theory include:

- POLS 5305.

Students should consult the Political Science Graduate Student Handbook for regulations on transfer courses, undergraduate courses, conferences, internships, and special courses. It is recommended that students complete at least one general field seminar (5300, 5301, 5302, 5303, 5332) prior to taking the topics courses. See the Graduate Advisor for more detail.

The non-thesis degree plan requires a minimum of 36 hours, including three hours of methodology, and courses from four of the five areas.

All candidates for the degree of Master of Arts with a major in political science must pass a final comprehensive examination, written, oral, or both written and oral. The scope, content, and form of the examination will be determined by the student's supervising committee. In the event of failure of the final comprehensive examination, the student may petition the Committee on Graduate Studies to retake the examination on a date no sooner than 60 days after the first examination. Students will not be permitted more than one reexamination after failure of the initial examination.

## International Studies Option

The International Studies option of the Master of Arts program in Political Science emphasizes comparative politics and international politics within the framework of Political Science. This option requires courses from three of six areas of Political Science and 12 hours in comparative politics and/or international politics. Students must have three hours of a methods course. Upon satisfying the requirements for this option, students will receive a letter of completion. Completion will not be reflected on student transcripts.

## U.S. Political Institutions and Processes Option

The U.S. Political Institutions and Processes option of the Master of Arts program in Political Science emphasizes political behavior and processes and public law and jurisprudence within the framework of political science. This option requires courses from three of six areas of Political Science and 12 hours in political behavior and processes and/or public law and jurisprudence. Students must have three hours of a methods course. Upon satisfying the requirements for this

option, students will receive a letter of completion. Completion will not be reflected on student transcripts.

## Dual Degree Program

Students in political science may participate in a dual degree program whereby they can earn a Master of Arts in political science and a Master of Arts in criminal justice. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs. To participate in the dual degree program, students must make separate application to each program and must submit a separate program of work for each degree. Those interested in a dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement on "Dual Degree Programs" in the general information section of this catalog.

## POLS Courses

### POLS5197 – MASTER'S COMPREHENSIVE EXAMINATION

1 Lecture Hour · 0 Lab Hours

Required of all non-thesis Master of Arts students in the semester of their graduation. Graded P/F/R.

### POLS5300 – AMERICAN GOVERNMENT AND POLITICS

3 Lecture Hours · 0 Lab Hours

A survey of the major theories and subfields in the study of American politics. Readings comprise a representation of scholarship illustrating a variety of substantive and methodological approaches.

### POLS5301 – JUDICIAL POLITICS AND THE U.S. SUPREME COURT

3 Lecture Hours · 0 Lab Hours

This course focuses on judicial decision-making and behavior. While the entire American court system will be considered, primary attention will be given to the U.S. Supreme Court and constitutional issues.

### POLS5302 – BUREAUCRATIC LEADERSHIP: TRENDS IN PUBLIC ADMINISTRATION AND POLICY MANAGEMENT

3 Lecture Hours · 0 Lab Hours

Recent literature in organizational theory, government restructuring, and policy management problems.

### POLS5303 – COMPARATIVE POLITICAL SYSTEMS

3 Lecture Hours · 0 Lab Hours

Theories, concepts, and methods that dominate modern comparative political analysis. The state of the discipline and controversies in the comparative method are evaluated.

### POLS5305 – TOPICS IN POLITICAL THEORY

3 Lecture Hours · 0 Lab Hours

This course will cover both historical and contemporary topics central to the discipline of political theory. It will consider the major figures in the field as well as themes such as citizenship, democracy, freedom, and authority. May be repeated for credit as the topic changes.

### POLS5310 – EMPIRICAL THEORY AND RESEARCH METHODS



**3 Lecture Hours · 0 Lab Hours**

Focus on issues of philosophy of science, explanations and theories, research designs, measurement, survey research, and statistical analysis. Exposes the student to the basic steps of political research: defining the problem or the question, formulating hypotheses, specifying a research design, operationalizing the measures, analyzing the data, and reaching conclusions.

### **POLS5311 – CAMPAIGNS AND ELECTIONS**

**3 Lecture Hours · 0 Lab Hours**

Describes important trends in modern campaigns and elections practices, focusing on contemporary American elections, including campaign finance, voter turnout, campaign advertising, and voter choices. Class presentations, a short research paper, and journal article readings.

### **POLS5315 – PUBLIC OPINION**

**3 Lecture Hours · 0 Lab Hours**

Describes the development of survey research and commonly-encountered problems in surveys. Focuses most heavily on the contemporary practice of public opinion research, particularly in the American setting. Class presentations, a short research paper, and journal article readings.

### **POLS5316 – PUBLIC LEADERSHIP: RACE, ETHNICITY, & GENDER**

**3 Lecture Hours · 0 Lab Hours**

Study of leadership theories, skills and traits, with focus on the intersections of race, ethnicity, and gender on public leadership in the public arena.

### **POLS5317 – ETHNIC GROUPS AND THE NATION STATE**

**3 Lecture Hours · 0 Lab Hours**

Examines the role of the nation state on ethnic/racial groups; characteristics of a nation, theories of the nation state and of ethnic/racial groupings; and, theories of incorporation of these groups by the nation state.

### **POLS5318 – WOMEN IN THE POLITICAL PROCESS**

**3 Lecture Hours · 0 Lab Hours**

This course examines women and gender in the political process, exploring various theoretical and methodological approaches helpful in studying gender and politics.

### **POLS5319 – CONGRESSIONAL BEHAVIOR**

**3 Lecture Hours · 0 Lab Hours**

This course addresses several major questions regarding the nature of Congress as an institution, the behaviors of its members, and the role Congress plays in shaping public policy and the general nature of a representative democracy. Students are expected to have the ability to comprehend readings that are heavily quantitative. Course requirements will include weekly writings, a research paper and exams.

### **POLS5320 – THE AMERICAN PRESIDENCY**

**3 Lecture Hours · 0 Lab Hours**

An overview course on the U.S. Presidency, exploring the institution as well as its relationship to other branches and political actors.

### **POLS5321 – THE PRESIDENCY AND DOMESTIC POLICY**

**3 Lecture Hours · 0 Lab Hours**

This course examines presidential and domestic policy making, exploring how the president makes policy, focusing on theories of presidential leadership, White House organization and presidential-congressional interactions.

## **POLS5322 – SEPARATION OF POWERS IN AMERICAN POLITICAL DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Theories behind institutional design and the historical development of the executive, legislative, and judicial branches in the United States. Emphasis is placed on interactions of these institutions of government and current separation of powers controversies.

## **POLS5323 – STATE COURT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Examination of the major theories of judicial politics and public law applied to the state court level. Topics include attention to the institutional, strategic, and attitudinal perspectives of judicial behavior.

## **POLS5324 – PUBLIC POLICY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Examination of the U. S. national policymaking process from agenda setting to policy outcomes. A variety of analytical frameworks are introduced to analyze power structures.

## **POLS5325 – STATE GOVERNORS AND LEGISLATURES**

**3** Lecture Hours · **0** Lab Hours

Examination of the similarities and differences in the organization of state legislative and executive offices. Course focuses on the organization of state governments and the behavior of state elites.

## **POLS5326 – STATE/LOCAL GOVERNMENT POLICYMAKING**

**3** Lecture Hours · **0** Lab Hours

Focus on policy problems. Emphasis is on trends in state policy, interstate policy innovation and diffusion, and the effects of federal programs on state policy choices.

## **POLS5327 – URBAN POLICYMAKING AND ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Focus on the influence of economic, political, institutional, and organizational factors on urban policymaking and administration. A variety of regime and power structure models facilitate the analysis of urban policymaking.

## **POLS5328 – PUBLIC POLICY AND MEXICAN AMERICAN COMMUNITIES**

**3** Lecture Hours · **0** Lab Hours

Focus on the public policy process and the limited role Mexican Americans have had in national and state (TX) policymaking. Select topic areas are utilized to focus on state actors, issues, allocation of resources, and the power structure for analytical purposes.

## **POLS5329 – PUBLIC BUDGETING**

**3** Lecture Hours · **0** Lab Hours

The concepts, processes, and policy impacts of taxation and public budgeting. Introduction to current research techniques, budgetary issues, and the relevant political economy literature.

## **POLS5330 – ENERGY AND THE ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Analysis of the politics, economics, and administration of energy and environmental policies in the United States.

## **POLS5331 – POLITICAL SYSTEMS OF EAST ASIA**

**3 Lecture Hours · 0 Lab Hours**

Comparative analysis of the political institutions and processes of China and Japan, with emphasis on the aspects of political development.

### **POLS5332 – THEORIES OF THE INTERNATIONAL SYSTEM**

**3 Lecture Hours · 0 Lab Hours**

Classical theories and concepts of international politics and models of foreign policy decision-making. Also may include the underlying assumptions in traditionalist vs. behaviorist approaches in examining international relations.

### **POLS5333 – IDENTITY AND POLITICS IN THE MIDDLE EAST**

**3 Lecture Hours · 0 Lab Hours**

Deeper examination of processes of state building and political development; state-society relations; Arabism; authoritarianism and democratization; oil and economic issues; Islamist politics; the role of transnational ideas.

### **POLS5334 – VIOLENCE AND DEPRIVATION IN WORLD POLITICS**

**3 Lecture Hours · 0 Lab Hours**

Focuses on theoretical frameworks, empirical analysis, and policy relevance of myriad threats to individuals and communal groups. Examples include: human rights, failed states, violence, health issues, slavery and migration, environmental security.

### **POLS5335 – LATIN AMERICAN POLITICS**

**3 Lecture Hours · 0 Lab Hours**

Designed to give students knowledge of the political development of Latin America by first examining general topics and then analyzing events in specific countries. Utilizes themes and concepts that are universal to all Latin American nations, but also stresses the different paths to political development that have been taken in each of these countries.

### **POLS5336 – REPRESSION AND REVOLUTION IN LATIN AMERICAN**

**3 Lecture Hours · 0 Lab Hours**

Examines issues of political repression and revolutionary participation in Latin America. Topics range from human rights violations to coups and revolutions.

### **POLS5337 – POLITICAL SYSTEMS OF RUSSIA AND EASTERN EUROPE**

**3 Lecture Hours · 0 Lab Hours**

Russia and the states of Eurasia from a comparative perspective. Analysis of how political issues and policies within these states have an impact upon economic, social, and cultural systems.

### **POLS5338 – AMERICAN FOREIGN POLICY**

**3 Lecture Hours · 0 Lab Hours**

Evaluation of some of the primary theories and models used in explaining American Foreign Policy. The course attempts to bridge the gaps that exist between theory and reality through approaches such as realism, neo-realism, deterrence, and others.

### **POLS5339 – ISRAELI IDENTITY AND THE ARAB-ISRAELI CONFLICT**

**3 Lecture Hours · 0 Lab Hours**

This course will explore the deeper threads of Israeli identity, and how these impact Israeli policy toward the Arab-Israeli conflict. Topics to be covered include: diverse and clashing identities (e.g., Jewish, democratic, Middle Eastern, Israeli); how identity clashes have played out in politics; outlines of Israeli foreign policy; specific policies toward the Palestinians.

## **POLS5341 – POLITICAL PSYCHOLOGY AND INTERNATIONAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Course focuses on psychological approaches to international politics and examines how different perspectives can contribute to the study of world politics.

## **POLS5342 – INTERNATIONAL ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

This course describes the institutions, decision-making and activities of the world's leading international organizations to establish an understanding of the role of international organizations in managing contemporary global problems.

## **POLS5368 – HEALTH POLITICS AND POLICY**

**3** Lecture Hours · **0** Lab Hours

Course will survey the political history of the health care debate in the United States as well as major features of federal health policy.

## **POLS5369 – SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

This course examines the role of the federal government relating to social policy as a central theme of contemporary American politics. Issues surrounding the federal government's attempt to create a social safety net and issues such as poverty will be confronted, as well as the central role of tax expenditures and attempts to roll back social policies.

## **POLS5380 – TOPICS IN U.S. POLITICS: INSTITUTIONS, PROCESS AND BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

This course will focus on the specific aspects of U.S. governing institutions, processes, and behavior. A single aspect of U.S. politics will be examined in a given semester. (May be repeated for credit when topics vary.)

## **POLS5381 – TOPICS IN COMPARATIVE POLITICS**

**3** Lecture Hours · **0** Lab Hours

This course will serve as a treatment of emerging and established nations. (May be repeated for credit when topics vary.)

## **POLS5382 – TOPICS IN PUBLIC LAW AND JURISPRUDENCE**

**3** Lecture Hours · **0** Lab Hours

The role of U.S. national and state courts in policy making, constitutional law, and the examination of the evolution and nature of law in the United States. (May be repeated for credit when topics vary.)

## **POLS5383 – TOPICS IN PUBLIC ADMINISTRATION AND POLICY MAKING**

**3** Lecture Hours · **0** Lab Hours

U.S. national policy making and program management, state and urban policy making and administration. (May be repeated for credit when topics vary.)

## **POLS5384 – TOPICS IN INTERNATIONAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Topics of international politics, including subjects such as American foreign policy, assessments of institutions, and international behavior.

## **POLS5391 – CONFERENCE COURSE IN POLITICAL SCIENCE**

**3 Lecture Hours · 0 Lab Hours**

Research and reading in a specialized field under the direction of a member of the graduate faculty. Graded P/F/W.

### **POLS5392 – FEDERAL POLICYMAKING: INSIDE THE FEDERAL GOVERNMENT**

**3 Lecture Hours · 0 Lab Hours**

This summer course offered in Washington, DC through the Archer Program in Public Policy, takes students behind the scenes in the federal government to explain how the government works. Students meet with officials from Congress, the White House, Executive Branch agencies, lobbying firms, NGOs, think tanks, interest groups, and the media. The seminar requires significant student participation. The extensive literature on federal government dynamics will be sampled, but the focus will be on interaction with representatives of the major institutions that participate in the process of federal governance. Open to designated Archer Fellows only, by permission of POLS graduate advisor.

### **POLS5398 – THESIS**

**3 Lecture Hours · 0 Lab Hours**

Original research designed to augment existing studies of problems or topics related to one of the major fields of study.

### **POLS5692 – ARCHER CENTER WASHINGTON INTERNSHIP**

**6 Lecture Hours · 0 Lab Hours**

An approved summer internship in a government or non-governmental organization in Washington, DC. Internships are arranged with assistance from the Archer Center staff. Students acquire and utilize the interpersonal skills necessary to function effectively in an office environment; they become conversant with the substantive issues on which their office focuses; and they develop time-management, priority-setting and other skills necessary to meeting the work and classroom demands of the Archer Graduate Program in Public Policy. Open to designated Archer Fellows only, by permission of POLS graduate advisor.

### **POLS5698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

Original research designed to augment existing studies of problems or topics related to one of the major fields of study. 5398 graded R/F only; 5698 graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[Art + Art History](#)

[Communication](#)

[Criminology & Criminal  
Justice](#)

[English](#)

[History](#)

[Humanities](#)

[Modern Languages](#)

[Linguistics](#)

[Music](#)

[Philosophy & Humanities](#)

[Political Science](#)

[Sociology and  
Anthropology](#)

[Theatre Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Sociology and Anthropology

College of Liberal Arts

### Chair Shelley Smith

Web [www.uta.edu/sociology-anthropology/](http://www.uta.edu/sociology-anthropology/)

Email [sociology@uta.edu](mailto:sociology@uta.edu)

Phone 817.272.2661

Fax 817.272.3759

430 University Hall

---

### Degrees / Certificates

#### Master's Degrees

Anthropology, M.A.

Sociology, M.A. Non Thesis

Sociology, M.A. Thesis

Sociology, M.A. Thesis Substitute

---

### Graduate Faculty

#### Professor

[Ben Agger](#)

[Beth Anne Shelton](#)

[Shelley Smith](#)

[Robert Young](#)

#### Associate Professor

[Susan Baker](#)

[Dana Dunn](#)

[Heather Jacobson](#)

[Robert Kunovich](#)

[Linda Rouse](#)

[Christian Zolniski](#)

#### Assistant Professor

[Krystal Beamon](#)

[Naomi Cleghorn](#)

[Chunping Han](#)

[Ritu Khanduri](#)

[Jason Shelton](#)

[Amy Speier](#)

#### Professor Emeritus

[Joseph Bastien](#)

[Raymond Eve](#)

#### Lecturer

[Josephine Ryan](#)

---

## Graduate Advisors

**Heather Jacobson**  
*Sociology, M.A. Thesis*

**Josephine Ryan**  
*Anthropology, M.A.*

---

## Department Information

### Courses

# Department Information

### Objectives: M.A. in Sociology

#### Admissions Requirements: Sociology

- **Criteria for Unconditional Admission**
- **Criteria for Probationary Admission**
- **Provisional Admission**
- **Deferred Admission**
- **Denied Admission**
- **International Students**

#### Fast Track Program in Sociology

#### Graduate Assistantships and Fellowships in Sociology

#### Degree Requirements: Sociology

- **Dual Degree Program**

### Objectives: M.A. in Anthropology

**Admissions Requirements: Anthropology** (Program Closed for Admission)

#### Graduate Assistantships and Fellowships in Anthropology

#### Degree Requirements: Anthropology

#### Archaeological Fieldwork

### Objectives: M.A. in Sociology

The Master of Arts program in sociology is designed to provide students with a firm substantive background in sociological theory and in the techniques of contemporary research methodology and statistical analyses. In addition to these core concerns, the program offers a variety of seminars, as well as practicum opportunities, to help prepare students for a wide range of professional careers in both the private and public sectors or continued graduate education at the Ph.D. level.

### Admissions Requirements: Sociology

Applicants must apply for admission through, and supply all information required by, the Graduate School. The Sociology Graduate Advisor, in consultation with other members of the faculty, decides on each applicant.

All of the following criteria will be considered in determining program admission status:

1. Undergraduate grade point average
2. Graduate Record Exam (GRE) scores
3. Letters of recommendation from faculty
4. Preparation in sociology and satisfactory performance in sociology courses and/or courses in related disciplines
5. A statement (2-3 pages) describing the applicant's academic background, research/study interests, and professional goals

### **Criteria for Unconditional Admission**

For unconditional admission, the student must satisfy each of the following criteria.

1. Minimum GPA of 3.0, as calculated by the Graduate School.
2. Preferred GRE score of at least 150 on the verbal subtest ( 500 on the prior scale) and 144 on the quantitative subtest (500 on the prior scale).
3. Satisfactory letters of recommendation.
4. Adequate preparation in sociology and satisfactory performance in sociology courses and/or those in related disciplines.
5. Satisfactory statement (2-3 pages) describing the applicant's academic background, research/study interests, and professional goals

### **Criteria for Probationary Admission**

Students who do not qualify for unconditional admission may be admitted on probation if they satisfy any 4 of the 5 criteria for unconditional admission.

Those entering the program under probationary status will be granted unconditional admission only after completing 12 hours of graduate sociology courses, approved by the Graduate Advisor, earning no grade below a B.

### **Provisional Admission**

An applicant unable to supply all required information prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Deferred Admission**

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Denied Admission**

Applicants who do not satisfy the requirements for any of the aforementioned forms of admission will not be admitted.

### **International Students**

To qualify for admission, international students must score 550 or above on the TOEFL.

Sociology students who completed their undergraduate degree in Sociology at UT Arlington with a 3.0 overall GPA, a 3.0 GPA in advanced hours, a B or better in Sociological Theory (SOCL 3372 or 4311), Social Statistics (SOCL 3352) and Social Research (SOCL 3305 or 3462), and satisfactory letters of recommendation from UT Arlington faculty qualify for automatic unconditional admission, pending submission of all required materials.



## Fast Track Program in Sociology

The Fast Track Program allows outstanding undergraduate students in sociology at UT Arlington to take up to three graduate seminars in sociology that will earn credit toward *both* the Bachelor's degree and the Master's degree in Sociology. It is designed to encourage high standards of performance, to facilitate the transition from undergraduate to graduate study, and to reduce time needed to complete the MA . Interested undergraduate students should apply for the Fast Track Program when they are within 30 hours of completing the Bachelor's degree. To qualify, students must have completed at least 30 hours at UTA with a GPA of 3.0 in all courses and 3.25 in the last 30 hours. Before entering the Fast Track, students must also have completed the four required core courses in the Sociology major with a GPA of at least 3.5, or three of the four with a GPA of 3.66 or more. Additionally, they must have already taken at least two non-core sociology courses with a GPA of 3.5 or higher.

Students who successfully complete the Fast Track Program will be admitted automatically to the Graduate School to continue their graduate work in the Sociology MA Program once the Bachelor's degree is awarded. They will *not* be required to take the GRE, complete an additional application for admission to the Graduate School, supply letters of recommendation, or pay an application fee. An undergraduate student completing the maximum of nine graduate hours would be admitted to the Sociology MA Program with only five additional courses and a thesis remaining to complete the requirements for the thesis option.

To remain in the Fast Track Program, students must receive no grade lower than a B in any graduate seminars taken as an undergraduate, selected with the advice and approval of the Sociology Graduate Advisor. Undergraduate students who do not maintain grades of B or A in the graduate courses taken will be unable to continue in the Fast Track Program but, if the courses are completed passing, will still receive credit toward their undergraduate degree requirements. Students originally denied entry into the Fast Track Program, discontinued after provisional admission, subsequently dropped or opting out are still welcome to apply to the Sociology MA Program in the usual way and will be considered without prejudice.

For an application form or to obtain more details about this program, contact the Sociology Graduate Advisor.

## Graduate Assistantships and Fellowships in Sociology

Graduate teaching and research assistantships and other forms of financial support will be awarded on a competitive basis. In addition to performance in any graduate courses the student may have taken, the same criteria used to determine admission status will be used in evaluating applications for such awards. No single factor, including standardized test scores, will be used to end consideration of any graduate assistantships.

## Degree Requirements: Sociology

Students may select from three options: the thesis, thesis substitute, or non-thesis degree plan.

**Thesis Option:** Satisfactory completion of a minimum of 24 hours of coursework, including core courses in theory, methods, and statistics, plus the six hour thesis course (SOCI 5698).

**Thesis Substitute Option:** Satisfactory completion of a minimum of 30 hours of coursework, including core courses in theory, methods, and statistics, plus the three hour thesis substitute course (SOCI 5393).

**Non-Thesis Option:** Satisfactory completion of a minimum of 33 hours of coursework, including core courses in theory, methods, and statistics, plus the three hour non-thesis course (SOCI 5385).

All candidates for the degree Master of Arts with a major in sociology must pass a final examination. For thesis candidates, it is the oral defense of the completed thesis. For thesis substitute candidates, it is an oral examination on a project, the scope, content, and form of which shall be determined by the student's supervising committee. A thesis substitute project might be, for example, a review of professional literature on a selected topic, a thematic paper integrating the course of study completed, or an internship report applying sociological concepts. For non-thesis candidates, it is an oral examination, the scope, content, and form of which shall be determined by the student's supervising committee.

### Dual Degree Program

Students in sociology may participate in a dual degree program where by they can earn a Master of Arts in Sociology and another field, such as Master of Public Administration or Master of Science in Social Work. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. Six or more hours may be jointly applied depending on the total number of hours required for both degrees, and subject to the approval of graduate advisors from both programs.

To participate in the dual degree option, students must make separate application to each program and must submit a separate Program of Work for each program. Admission to and enrollment in the two programs must be concurrent (admitted to the second program before completing more than 24 hours in the first). Those interested should consult each of the appropriate graduate advisors for coursework requirements and refer to the Graduate School catalog entry on Dual Degree Program in the Advanced Degrees and Requirements section for further details.

### Objectives: M.A. in Anthropology

The Anthropology M.A. program offers students a well-integrated curriculum in cultural anthropology, archaeology, and biological anthropology. It is intended both (1) for students who wish to prepare for admission to an anthropology Ph.D. program at another university, and (2) for those who wish to learn anthropological skills and perspectives to enhance their careers (in education, the helping professions, or other fields) in an increasingly diverse society.

Students may choose between a thesis option (30 credit hours), recommended for those planning to go on to a Ph.D. program, and a thesis substitute/internship option (36 credit hours, ordinarily including a three-hour practicum and ANTH 5370).

### Admissions Requirements: Anthropology

Program currently is closed to admissions

### Graduate Assistantships and Fellowships in Anthropology

Graduate teaching and research assistantships and other forms of financial support will be awarded on competitive basis. No single factor will be used as the basis for these awards; rather candidates' records will be evaluated in their entirety and support will be awarded to the best candidates based on the collective judgment of the Graduate Anthropology Faculty.

### Degree Requirements: Anthropology

Thesis Option: Satisfactory completion of a minimum of 30 credit hours. Program must include 1) ANTH 5310; 2) ANTH 5351; 3) a 3 hour statistics course at either the graduate or undergraduate level, as specified by the student's committee; 4) 6 hours of methods (including ANTH 5315 or ANTH 5320, and ANTH 5325 or ANTH 5363; 5) 6 hours of thesis.

Thesis Substitute/Internship Option: Satisfactory completion of a minimum of 36 credit hours. Program must include 1-4 above, ANTH 5370, and ANTH 5371.

## Archaeological Fieldwork

All graduate students concentrating in archaeology are strongly encouraged to have participated in an archaeological field school (for academic credit) or to have obtained equivalent excavation, survey, and/or laboratory experience before graduation. Students seeking placement on archaeological field projects should contact the faculty for guidance and recommendations pertinent to their goals and interests.

## ANTH Courses

### ANTH5191 – CONFERENCE COURSE

1 Lecture Hour · 0 Lab Hours

### ANTH5307 – FORENSIC ANTHROPOLOGY

3 Lecture Hours · 2 Lab Hours

Estimating age, sex, race, stature, pathology, cause of death, and time since death from human remains. The role of skeletal biology and physical anthropology in criminal investigation. Case studies will be used to demonstrate application of the methods studied. Requires enrollment in the undergraduate lab section.

### ANTH5310 – HISTORY OF ANTHROPOLOGICAL THEORY

3 Lecture Hours · 0 Lab Hours

This course is a critical examination of major theoretical trends in ethnological theory, from mid-19th century to the present.

### ANTH5315 – ARCHAEOLOGICAL METHODS

3 Lecture Hours · 0 Lab Hours

An examination of research methods and underlying theory in archaeology and their evolution since the era of European antiquarianism. Origins and development of archaeology as a scholarly discipline. Emphasis on the period 1960-present; consideration of recent trends in analysis and reportage.

### ANTH5317 – ARCHAEOLOGY OF EXPLORATION

3 Lecture Hours · 0 Lab Hours

Archaeological evidence for travel in antiquity. Technology of travel (horse/camel, wheeled vehicles, boats) and related topics (navigation; development of trade and trade routes; nature of discovery, settlement and colonization in antiquity). Case studies drawn from ancient cultures of the Old World from the Stone Age through Medieval times.

### ANTH5320 – METHODS IN BIOLOGICAL ANTHROPOLOGY

3 Lecture Hours · 0 Lab Hours

This course covers several topical areas relevant to biological anthropologists specializing in human biology, including osteology and skeletal biology, skeletal maturation (both postcranial and craniofacial), growth and development from birth to biological maturity, and selected topics in forensics, anthropometry, physiology, nutrition, genetics, epidemiology, and demography.

### ANTH5325 – QUALITATIVE METHODS

3 Lecture Hours · 0 Lab Hours

Students do fieldwork in anthropology. Students practice participant observation, conduct an interview,

collect a kinship chart, map blocks, collect life histories and participate in rituals. Course emphasizes methods of data collection, analysis/interpretation of data, and critical writing.

### **ANTH5341 – POSTCOLONIAL SOUTH ASIA**

**3** Lecture Hours · **0** Lab Hours

It approaches the competing and complementary claims on postcolonial theory by mapping the intersections in historical anthropology, literary theory, and cultural analysis. More broadly it brings to focus the shifts from Marxist to Poststructuralist directions. Though the regional focus is on India, the endeavor is also to assess dialogues among varying strands of cultural perspectives and its impact in other postcolonial contexts, both within and beyond the South Asian subcontinent.

### **ANTH5342 – ADVANCED ETHNOLOGY**

**3** Lecture Hours · **0** Lab Hours

Seminar based on student reports and critiques of assigned readings. Major emphasis on the areas of ethnology and social anthropology.

### **ANTH5344 – CULTURES OF LATIN AMERICA**

**3** Lecture Hours · **0** Lab Hours

An ethnological comparison of societies and cultures in Central and South America. Emphasis on gender, ethnicity, and political economy.

### **ANTH5345 – RELIGION AND CULTURE**

**3** Lecture Hours · **0** Lab Hours

An ethnological comparison of native religions to understand non-western belief systems. Emphasis on rituals, myths, totemic systems, taboos, and cosmology.

### **ANTH5346 – MESOAMERICAN ARCHAEOLOGY**

**3** Lecture Hours · **0** Lab Hours

An examination of the diversities of several prehistoric Mesoamerican cultures including the Olmec, Maya, Teotihuacan, Zapotec, and the Aztec. Current issues including the beginnings of agriculture, early village life, the rise of complexity and the institution of kingship, warfare, and Mesoamerican ideology and cosmology will be addressed.

### **ANTH5349 – TOPICS IN ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit as the topic changes.

### **ANTH5351 – EMERGENCE OF HUMANKIND**

**3** Lecture Hours · **0** Lab Hours

An intensive review of the evidence for, and main outlines of, human biological and cultural evolution up to agricultural origins.

### **ANTH5353 – MEDICAL ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

An examination of anthropological concepts for understanding curing practices and attitudes toward health programs in various cultures.

### **ANTH5355 – HUNTERS AND GATHERERS**

**3** Lecture Hours · **0** Lab Hours

Cross-cultural approach to the ecological, social, and historical contexts of hunters, gatherers, and foragers.

### **ANTH5363 – ETHNOGRAPHY AND PERSONAL NARRATIVE**

**3** Lecture Hours · **0** Lab Hours

Focus is on anthropology and autobiography, autoethnography, life history, and narrative constructions of selfhood in different cultural contexts. Development of the life history approach in ethnographic research. Methods in the collections and analysis of life stories.

### **ANTH5365 – GLOBALIZATION AND INTERNATIONAL MIGRATION**

**3** Lecture Hours · **0** Lab Hours

Examines how the expansion of global capitalist economy has contributed to the growth of international migration around the world. Focuses on how transnational migration affects the economic, social, political, and cultural practices of immigrants in both their countries of origin and destination.

### **ANTH5369 – FOLKLORE AND MYTHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Function, forms, and interpretation of folklore and myth in traditional societies; examination of oral literature as an expression of continuity and change; emphasis on a structural analysis of myth.

### **ANTH5370 – APPLIED ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

Examines the application of anthropological knowledge to solve practical problems in today's global world. We learn how anthropological concepts, methods, and insights are applied to understand and solve important problems related to economic development, health, environmental issues, immigration, international business, and others.

### **ANTH5371 – RESEARCH PRACTICUM / INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

### **ANTH5373 – ARCHAEOLOGY FIELD SCHOOL**

**0** Lecture Hours · **3** Lab Hours

This course, conducted during the summer sessions, consists of on-site and classroom instruction in techniques of archaeological survey, excavation, laboratory, processing, and analysis. Students can receive either three or six hours of credit. Enrollment by permission of instructor only. Prior coursework in anthropology desirable but not necessary.

### **ANTH5389 – TEACHING ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

To learn strategies of coping with practical problems of teaching undergraduate anthropology, students confer with one or more professors to discuss preparing syllabi and lectures, constructing and evaluating examinations, etc. Not to be counted toward the degree requirement.

### **ANTH5392 – CONFERENCE COURSE IN ANTHROPOLOGY**

**3** Lecture Hours · **0** Lab Hours

### **ANTH5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **ANTH5406 – HUMAN OSTEOLOGY**

**3** Lecture Hours · **2** Lab Hours

Detailed examination of human skeletal morphology. Topics include form and function of all skeletal elements in the human body, differentiation of each bone, left and right side identification, identification of fragmented remains, and muscle attachments and articulations. Content useful in forensic anthropology, archaeology, and hominid paleontology. If taken for undergraduate credit either as ANTH 4306 or ANTH 4406, cannot be repeated for graduate credit.

### **ANTH5673 – ARCHAEOLOGY FIELD SCHOOL**

**0** Lecture Hours · **6** Lab Hours

This course, conducted during the summer sessions, consists of on-site and classroom instruction in techniques of archaeological survey, excavation, laboratory, processing, and analysis. Students can receive either three or six hours of credit. Enrollment by permission of instructor only. Prior coursework in anthropology desirable but not necessary.

### **ANTH5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

## **SOCI Courses**

### **SOCI5191 – CONFERENCE COURSE**

**1** Lecture Hour · **0** Lab Hours

### **SOCI5301 – SOCIOLOGICAL THEORY**

**3** Lecture Hours · **0** Lab Hours

A comprehensive review, analysis, and evaluation of the dominant conceptual perspectives, and their proponents, in sociological theory.

### **SOCI5303 – RESEARCH DESIGN**

**2** Lecture Hours · **2** Lab Hours

Seminar on the design, plan, structure, and strategies of contemporary social research. Examines the interrelationships of theory, methods, and statistics along with the problems of measurement, sampling, scaling techniques, and the presentation of statistical data.

### **SOCI5304 – SOCIAL STATISTICS I**

**2** Lecture Hours · **2** Lab Hours

Examines a variety of statistical methods including analysis of variance and covariance, multivariate regression models, multiple and partial correlations, factor analysis, and other contemporary parametric and nonparametric techniques. Emphasis is on the application of these methods to social science data.

### **SOCI5310 – SEMINARS IN SOCIAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Introduction and discussion of theoretical and methodological perspectives in social psychology. Focusing on particular domains of social life, these seminars examine fundamental processes of social interaction and the influence of social situations and social experience on the thought, feeling, and behavior of individuals. (May be repeated for credit when topics vary.)

### **SOCI5319 – SEMINARS IN SOCIAL INSTITUTIONS AND CHANGE**

**3** Lecture Hours · **0** Lab Hours

Seminars in this area are concerned with the structure and change of the basic elements of society that represent ordered and regulated aspects of social life. Also examined are collective behavior and social movements which result from instability in institutional arrangements and represent efforts to enact social change. (May be repeated for credit when topics vary.)

### **SOCI5330 – SEMINARS IN SOCIAL DIFFERENTIATION**

**3** Lecture Hours · **0** Lab Hours

In all human societies, perceptions of differences in individuals, social positions and groups arise and form a basis for social evaluation. Seminars in this area examine the processes involved in social differentiation, social evaluation, and resulting forms of social inequality. (May be repeated for credit when topics vary).

### **SOCI5341 – SEMINARS IN THEORY AND RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Research methods seminars address a variety of issues related to quantitative and qualitative approaches to data collection and analysis. Theory courses offer extended treatment of topics in theory and theory construction, reflecting systematic efforts to understand the nature and operation of human society and social behavior. (May be repeated for credit when topics vary.)

### **SOCI5385 – NON-THESIS PROJECT**

**3** Lecture Hours · **0** Lab Hours

The topic and scope of the written project must be approved by the three graduate faculty members who will serve on the final Supervising Committee. A final oral presentation of the project is required.

### **SOCI5388 – RESEARCH PRACTICUM / INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

### **SOCI5389 – TEACHING SOCIOLOGY**

**3** Lecture Hours · **0** Lab Hours

To learn strategies of coping with practical problems of teaching undergraduate sociology, students assist one or more professors in lecture preparation, grading, and examination construction. Not to be counted toward the degree requirement.

### **SOCI5392 – CONFERENCE COURSE IN SOCIOLOGY**

**3** Lecture Hours · **0** Lab Hours

There is not currently a description listed for this course since the content varies.

### **SOCI5393 – THESIS SUBSTITUTE**

**3** Lecture Hours · **0** Lab Hours

The topic and scope of the written project must be approved by the three graduate faculty members who will serve on the final Supervising Committee. A final oral presentation of the project is required.

### **SOCI5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **SOCI5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

Home

Degree Requirements

Fields of Study

School of Architecture

College of Business

College of Education and  
Health Professions

College of Engineering

College of Liberal Arts

College of Nursing

Nursing - MSN, DNP, &  
PhD

College of Science

School of Social Work

School of Urban and Public  
Affairs

Admissions Requirements &  
Procedures

General Information &  
Regulations

Graduate Calendar

Graduate Faculty

Table of Contents

Index

## Nursing

### College of Nursing

Web [www.uta.edu/nursing/](http://www.uta.edu/nursing/)  
Phone 817.272.2776

669 Pickard Hall

### Degrees / Certificates

#### Master's Degrees

Accelerated Online MSN Nurse Pr-Adult Geri Acute  
Accelerated Online MSN Nurse PR-Adult Geri Primary  
Accelerated Online MSN Nurse Pr-Pedi Acute  
Accelerated Online MSN Nurse Pr-Pedi Primary  
Accelerated Online Nurse Educator, M.S.N. Non Thesis  
Accelerated Online Nurse Family Practitioner  
Accelerated Online Nursing Admin., M.S.N.  
Nurse Practitioner, M.S.N. Adult Geri Acute Care  
Nurse Practitioner, M.S.N. Adult Geri Primary Care  
Nurse Practitioner, M.S.N. Family FNP On Campus  
Nurse Practitioner, M.S.N. Family Psychiatric Mental Health  
Nurse Practitioner, M.S.N. Neonatal  
Nurse Practitioner, M.S.N. Pediatric Acute Care  
Nurse Practitioner, M.S.N. Pediatric Primary Care  
Nursing Admin. Executive, M.S.N. Non Thesis  
Nursing Education, M.S.N.

#### Doctoral Degrees

Accelerated Online DNP Nursing Practice  
Doctor of Nursing Practice, D.N.P.  
Nursing Administration, B.S.N. to Ph.D.  
Nursing Educator, B.S.N. to Ph.D.  
Nursing Practice-DNP  
Nursing, Clinical, B.S.N. to Ph.D.  
Nursing, Ph.D.

#### Certificates

Accelerated Online Cert Post Master's Adult Geri Acute  
Accelerated Online Cert Post Master's Family Nurse Prac  
Accelerated Online Cert Post Master's Pedi Acute  
Accelerated Online Cert Post Master's-Adult Geri Primary  
Accelerated Online Cert Post Master's-Pedi Primary  
Accelerated Online Post Bac Nursing Education Certificate  
Advanced Nursing Educator Role Certificate  
Nurse Educator  
Nurse Practitioner, Post Master Cert-Family  
Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care  
Nurse Practitioner, Post Masters Cert, Adult Geri Primary Care  
Nurse Practitioner, Post Masters Cert, Neonatal – [Gainful Employment Disclosure](#)  
Nurse Practitioner, Post Masters Cert, Pediatric Acute Care  
Nurse Practitioner, Post Masters Cert, Pediatric Primary Care



## Graduate Faculty

### Associate Dean

[Mary Schira](#)

### Clinical Assistant Professor

[Susan Baxley](#)  
[Deborah Behan](#)  
[Susan Carlson](#)  
[Daisha Cipher](#)  
[Chad Collom](#)  
[Jeannette Crenshaw](#)  
[Elizabeth Ellis](#)  
[Beverly Ewing](#)  
[Christopher Fowler](#)  
[John Gonzalez](#)  
[Linda Grande](#)  
[Nancy Handy](#)  
[Valerie Hart](#)  
[Lauri John](#)  
[Carol Lieser](#)  
[Jacqueline Michael](#)  
[Mary Jo Perley](#)  
[Cynthia Plonien](#)  
[Lisa Taylor](#)  
[Phyllis Wood](#)

### Clinical Associate Professor

[Phyllis Adams](#)  
[Joy Baker](#)

Interim Dean, College of Nursing; Associate Dean, Dept. MSN Administration, Education, and PhD Programs; Professor

[Jennifer Gray](#)

Interim Director, Doctor of Nursing Practice, Clinical Assistant Professor

[Sharolyn Dihigo](#)

Interim Director, MSN Education Program; Clinical Instructor

[Marie Lindley](#)

### Professor

[Mary Lou Bond](#)  
[Carolyn Cason](#)  
[Judy Leflore](#)  
[Mary Mancini](#)

### Associate Professor

[Cheryl Anderson](#)  
[Donelle Barnes](#)  
[Maureen Courtney](#)  
[Barbara Raudonis](#)  
[Marilee Schmelzer](#)

### Assistant Professor

[Maxine Adegbola](#)  
[Mindi Anderson](#)  
[Mary Cazzell](#)  
[Kathryn Daniel](#)  
[Ronda Mintz-Binder](#)

### Associate Adjunct Professor

[Lorraine Hegstad](#)

### Clinical Professor

[Diane Snow](#)

### Assistant Clinical Professor

[Patricia Thomas](#)

### Clinical Instructor

[Deborah Boger](#)

**Essence Carter Griffin**  
**Sara Duvall**  
**Paula Gillman**  
**Marcia Harris**  
**Mary Haskew**  
**Kellie Kahveci**  
**Sandra Laird**  
**Sayda Major**  
**Bethany Mcclean**  
**Howard Mckay**  
**Lindy Moake**  
**Jodie Moore**  
**Sara Moore**  
**Patti Parker**  
**Vicki Patrick**  
**Dixie Stevenson**  
**Kimberly Wright**  
**Nancy Wyrick**

---

## Graduate Advisors

### **Felicia Chamberlain**

*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Accelerated Online Nursing Admin., M.S.N.*

### **Jennifer Gray**

*Nursing Administration, B.S.N. to Ph.D.*  
*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

### **Lauri John**

*Nursing Administration, B.S.N. to Ph.D.*  
*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

### **Marie Lindley**

*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Nursing Education, M.S.N.*

### **Cynthia Plonien**

*Accelerated Online Nursing Admin., M.S.N.*  
*Nursing Admin. Executive, M.S.N. Non Thesis*

### **Mary Schira**

*Doctor of Nursing Practice, D.N.P.*  
*Nurse Practitioner, Post Master Cert-Family*  
*Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care*  
*Nurse Practitioner, Post Masters Cert, Neonatal*  
*Nurse Practitioner, Post Masters Cert, Pediatric Acute Care*  
*Nurse Practitioner, Post Masters Cert, Pediatric Primary Care*

---

## Department Information

### Courses

# Department Information

### MSN Program

- **MSN Admissions Requirements (All MSN Programs)**

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Deferred Status**
- **Denial of Admission**
- **MSN Graduate Admission Table**
- **MSN Degree Requirements**
  - **MSN Required Courses**
  - **MSN Nursing Specialty Areas**
  - **MSN Functional Role**
  - **Electives/Independent Study**

#### **Post-Masters Nurse Practitioner Certificates**

#### **Masters Nursing Certificates**

#### **Dual or Joint Degree Programs**

- **Dual Degree Programs**
- **Joint Degree (MSN from UT Arlington and MPH from University of North Texas Health Science Center in Fort Worth)**

#### **DNP Program**

- **DNP Admissions Requirements**
  - **Unconditional Admission**
  - **Probationary Admission**
  - **Provisional Admission**
  - **Deferred Status**
  - **Denial of Admission**
- **DNP Graduate Admission Table**
- **DNP Degree Requirements**
  - **DNP Required Courses**
  - **Electives/Independent Study**

#### **PhD Program**

- **PhD Admission and Degree Requirements**
- **PhD Admission Status Options**
  - **Unconditional Admission**
  - **Probationary Admission**
  - **Provisional Admission**
  - **Deferred Status**
  - **Denial of Admission**
- **The PhD Program in Nursing Admission Requirements**
- **PhD Degree Requirements**
- **BSN-to-PhD Master's Level Courses**
  - **Core Master's Courses taken by all BSN-to-PhD students**
  - **Administration Specialty Master's Courses**
  - **Clinical Specialty Master's Courses**
  - **Educator Specialty Master's Courses**

## MSN Program

### MSN Admissions Requirements (All MSN Programs)

The applicant for the Master of Science in Nursing (MSN) degree must meet the general requirements of the Graduate School and have a Bachelor of Science in Nursing (BSN) degree from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE) or proof of equivalent education at a foreign institution. Individual consideration may be given to applicants who hold a BSN degree from non-accredited programs.

Potential students must also possess a current unencumbered RN license from Texas, a compact state, or other state board of nursing.

The College of Nursing admission criteria are detailed in the MSN Graduate Admission table. The admission status options are described below.

#### Unconditional Admission

Applicants must meet all criteria for unconditional admission.

#### Probationary Admission

Criteria for probationary admission status and minimum GRE scores are listed in the [MSN Graduate Admission Table](#). When admitted on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program. Probationary students are admitted for part-time study only.

#### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

#### Deferred Status

Deferred decision is granted when a file is incomplete or when a denial decision is not appropriate.

#### Denial of Admission

An applicant will be denied admission if they have less than satisfactory performance on a majority of admission criteria listed in the MSN Admission Table.

### MSN Graduate Admission Table

Admission Criteria	Unconditional	Probationary
GPA on last 60 hours of Undergraduate Program (BSN) (as calculated by Graduate School of UTA)	3.0 <sup>[1]</sup>	2.8-2.99 <sup>[3]</sup> <sup>[5]</sup>
GRE <sup>[2]</sup> Two highest GRE scores will be used in admission process.	Not required.	Verbal: 430 or 149 <sup>[3]</sup> or Quantitative: 430 or 141 or Analytical Writing: 3.5 Analytical: 430
Dual and Joint Degree Applicants	Additional standardized tests and requirements specific to the program must be completed. See Program advisor.	
TSE (Test of Spoken English) or TOEFL (Test of	TSE: Score of 40 or higher or TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the	

English as a Foreign Language) or IELTS (International English Language Testing System)	internet-based test and achieve the following minimum scores on subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16 or IELTS minimum score of 7.0.
Clinical Experience	<p>1. Two years clinical experience as a Registered Nurse (RN) is strongly recommended for all programs. Applicants without 2 years clinical experience should contact the Associate Dean and/or Program Director prior to making application.</p> <p>2. For the ACPNP, NNP, and ACNP programs, two years clinical experience as an RN in an acute care setting is required (Evaluated by the Associate Dean and/or Program Director).</p> <p>3. For the MSN in Nursing Education program, 2 years clinical experience is required.</p> <p>4. International students are required to have two years RN clinical experience in a United States (or equivalent) health care system.</p>
200 word Essay re: Career goals	Evaluated by Associate Deans of MSN Programs
Current and unencumbered RN License from Texas, a compact state, or other state board of nursing [4]	Evaluated by Associate Deans of MSN Programs
Pediatric Advanced Life Support (PALS)	Required only for the Acute Care Pediatric Nurse Practitioner Program; Neonatal NP applicants may complete the NRP (Neonatal Resuscitation Program).
BSN from NLNAC or CCNE Accredited Program	Evaluated by Associate Deans of MSN Programs
Undergraduate Level Statistics	Minimum grade of "C"
Cardiopulmonary Resuscitation	Required for all programs.

[1] Minimum undergraduate GPA requirement for unconditional admission is a 3.0 on a 4.0 scale as calculated by the Graduate School.

[2] Verbal, Quantitative, and Analytical Writing GRE scores will be reviewed and the two highest scores will be considered for the admission process.

[3] If a person does not meet probationary admission requirements, he or she may request review by a Committee of the Graduate Nursing Faculty. The Committee may request completion of coursework and/or additional information to support the individual's petition for admission.

[4] All graduate nursing students must have an unencumbered Registered Nursing License as designated by the Board Of Nursing (BON) for clinical courses. It is imperative that any student whose license becomes encumbered by the BON must immediately notify their department chair. The complete policy regarding encumbered RN license is available online at:

<http://www.uta.edu/nursing/MSN/unencumbered>

[5] If admitted on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program. Probationary students are admitted for part-time study only.

**Admission Policy for Individuals Ineligible to Continue Graduate Study at Another University: If potential students are ineligible to continue graduate study at another university and apply to The University of Texas at Arlington MSN Program, they will be reviewed by an admission committee. The admission committee will be composed of (at minimum): 1) Director of the Program they wish to study, 2) Representative core faculty, and 3) MSN Graduate Advisor. The admission committee will make their recommendation**

for admission or denial based on the following: 1) Admission materials (GPA on the last 60 hours of BSN, graduate GPA, GRE scores, grade of C or higher on statistics, essay, and English language score if applicable); 2) a narrative statement from the potential student providing a rationale for their ineligibility at another university; and 3) a plan for successful study at UT Arlington. The admission committee reserves the right to ask for additional materials as are needed. The admission committee will make its recommendation of admission or denial to the Graduate Office for the University.

### MSN Degree Requirements

A degree plan is developed for the student upon admission to the MSN Program. Students are required to have any changes in degree plan approved by a Graduate Advisor prior to registration. A minimum of 36 semester hours, thesis or non-thesis option, is required for the degree. Elective coursework that supports the selected nursing study area must be approved by the Graduate Advisor prior to registration. Students electing the thesis option do not have elective course requirements.

All non-thesis and thesis candidates shall pass a practicum course at the end of their coursework. All thesis candidates for the degree of Master of Science in Nursing shall present the completed thesis in a final oral examination.

MSN students must complete hours in required courses, nursing specialty area, functional role, and elective(s) depending on specific plan.

#### MSN Required Courses

NURS 5327. Analysis of Theories for Nursing  
 NURS 5301. Research in Nursing  
 NURS 5328. Theory and Research Application in Nursing

#### MSN Nursing Specialty Areas

Each student must complete the required courses in at least one nursing specialty area:

##### Nursing Administration

NURS 5311, 5340, 5341, 5342, 5343, 5382

##### Nursing Education

NURS 5302, 5308, 5309, 5318, 5319, 5326, 5360, 5361, 5362

##### Nurse Practitioner Programs

Acute Care Adult Gerontology: NURS 5303, 5305, 5314, 5315, 5334, 5418, 5435, 5436, 5631  
 Acute Care Pediatric: NURS 5303, 5306, 5314, 5315, 5334, 5418, 5441, 5442, 5444, 5631  
 Acute Care and Primary Pediatric: NURS 5303, 5306, 5314, 5315, 5334, 5418, 5441, 5442, 5444, 5631, 5632  
 Adult Gerontology Primary Care: NURS 5303, 5305, 5313, 5315, 5334, 5418, 5451, 5552, 5453, 5631  
 Family: NURS 5303, 5305, 5306, 5313, 5315, 5334, 5418, 5430, 5431, 5631  
 Neonatal Nursing: NURS 5307, 5314, 5315, 5334, 5418, 5438, 5444, 5539, 5631 or 5204, 5315, 5316, 5334, 5446, 5447, 5450, 5631  
 Primary Care Pediatric: NURS 5303, 5306, 5313, 5315, 5334, 5418, 5442, 5444, 5631  
 Family Psychiatric Mental Health: NURS 5303, 5305, 5306, 5315, 5334, 5418, 5424, 5425, 5631

#### MSN Functional Role

Each student must complete the required courses in at least one functional role as designated by their degree plan:

**Administration:** NURS 5339  
**Nurse Practitioner:** NURS 5350

**Educator:** NURS 5329

### **Electives/Independent Study**

Elective courses may be taken in Nursing or other departments of the University. Electives can also be transferred from other universities with the approval of a Graduate Advisor. Independent study offers the student the opportunity to explore topics of special interest.

### **Post-Masters Nurse Practitioner Certificates**

The nurse practitioner certificate enables individuals with a Master's Degree in Nursing to be recognized by the Board of Nursing as an Advanced Practice Registered Nurse and to take a national certification exam in their area of specialization. Certificate students must complete the required courses for the nursing specialty area and functional role.

- Acute Care Adult Gerontology Nurse Practitioner
- Acute Care Pediatric Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Family Nurse Practitioner
- Gerontological Nurse Practitioner
- Neonatal Nurse Practitioner
- Primary Care Pediatric Nurse Practitioner
- Family Psychiatric Mental Health Nurse Practitioner

### **Masters Nursing Certificates**

Two certificates in Nursing Education are available through the College of Nursing.

- **Nurse Educator:** A 6-hour certificate that includes two education courses (NURS 5302 and 5309).
- **Advanced Nurse Educator Role:** A 12-hour certificate which includes four educator courses (NURS 5302 and 5309) plus 2 of the following 3 courses: NURS 5308, 5329 or 5360.

### **Dual or Joint Degree Programs**

#### **Dual Degree Programs**

Master of Science in Nursing Administration/Master of Business Administration (MSN/MBA) [57 credit hours]

Master of Science in Nursing/Master of Science in Health Care Administration (MSN/HCAD) [60 credit hours]

#### **Joint Degree (MSN from UT Arlington and MPH from University of North Texas Health Science Center in Fort Worth)**

Master of Science in Nursing/Master of Science in Public Health (MSN/MPH) [57 Credit hours]

### **DNP Program**

The Doctor of Nursing Practice Program builds on a foundation of previous advanced practice education in nursing and prepares advanced practice nurse providers who demonstrate leadership, clinical expertise and innovation in problem recognition and resolution. The required courses identified for the DNP curriculum meet the American Association of Colleges of Nursing

Essentials for Doctoral Education for Advanced Nursing Practice (AACN, August 2006).

## DNP Admissions Requirements

The applicant for the Doctor of Nursing Practice (DNP) degree must meet the general requirements of the Graduate School and have a Master's Degree in Nursing as a Nurse Practitioner (NP) or a Post Master's with NP Preparation from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE) or proof of equivalent education at a foreign institution.

Potential students must also possess a current unencumbered Texas RN license or an unencumbered license from a designated compact state for admission.

The College of Nursing admission criteria are detailed in the DNP Graduate Admission Table. The admission status options are described.

### Unconditional Admission

Applicants must meet all criteria for unconditional admission.

### Probationary Admission

Criteria for probationary admission status are listed in the [DNP Graduate Admission Table](#). When on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

### Deferred Status

Deferred decision is granted when a file is incomplete or when a denial decision is not appropriate.

### Denial of Admission

An applicant will be denied admission if they have less than satisfactory performance on a majority of admission criteria listed in the [DNP Graduate Admission Table](#).

## DNP Graduate Admission Table

Admission Criteria	Unconditional	Probationary
GPA on master's course work or Post-Master's NP Certificate	3.5 on a 4.0 scale	3.0 - 3.49 <sup>[1]</sup>
GRE	Waived	Waived
TSE (Test of Spoken English) or TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System)	TSE: Score of 40 or higher or TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the internet-based test and achieve the following minimum scores of subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16 or IELTS minimum score of 7.0.	
Statistics course	Graduate level with a minimum grade of B.	
Current Vita or Resume	Evaluated by Associate Dean or Admissions Committee	
Written statement of career vision/goals	Evaluated by Associate Dean or Admissions Committee	
Unencumbered RN License in Texas <sup>[2]</sup>	Evaluated by Associate Dean of DNP Program	
Currently recognized by Board of Nursing as an	Evaluated by Associate Dean of DNP Program	



**APRN in Texas**

Current National certification as an NP	Evaluated by Associate Dean of DNP Program
---	--

Current NP Practice	Evaluated by Associate Dean or Admissions Committee
---------------------	---

Current CPR, ACLS, PALS or NRP as required for their Specialty Area	Evaluated by Associate Dean of DNP Program
---	--

Proficiency in use of computer for word processing, spreadsheet development, and data and text file creation and manipulation	Evaluated by Associate Dean of DNP Program
---	--

[1] Students admitted on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

[2] All graduate nursing students must have an unencumbered registered nurse license as designated by the Board Of Nursing (BON) for clinical courses. It is imperative that any student whose license becomes encumbered by the BON must immediately notify the Associate Dean for the DNP Program. The complete policy regarding encumbered RN license is available online at: <http://www.uta.edu/nursing/MSN/unencumbered>

**Admission Policy for Individuals Ineligible to Continue Graduate Study at Another University: If potential students are ineligible to continue graduate study at another university and apply to The University of Texas at Arlington DNP Program, they will be reviewed by an Admissions Committee. The Admissions Committee will be composed of (at a minimum): 1) Two representative faculty, and 2) DNP Graduate Advisor. The Admissions Committee will make their recommendation for admission or denial based on the following: 1) Admission materials (GPA on the MSN or Post-Master's certificate, grade of B or higher on graduate statistics, current vita, written statement of career vision, and English language score if applicable); 2) a narrative statement from the potential student providing a rationale for their ineligibility at another university; and 3) a plan for successful study at UT Arlington. The Admissions Committee reserves the right to ask for additional materials as are needed. The Admissions Committee will make its recommendation of admission or denial to the Graduate Office for the University.**

## DNP Degree Requirements

A degree plan is developed for the student upon admission to the DNP Program. Students are required to have any changes in planned program approved by the DNP Graduate Advisor prior to registration. The DNP Program includes 33 semester hours of required courses and 3 semester hours of elective. Students will select 3 semester hours of electives with the guidance of the graduate advisor to support and/or extend their clinical practice. Students will complete a Scholarly Project and Clinical Practica.

### DNP Required Courses

NURS 6302, 6320, 6321, 6323, 6324, 6326, 6382, 6620, 6621

### Electives/Independent Study

- Elective courses may be taken in Nursing or other departments of the University.
- Independent study offers the student the opportunity to explore topics of special interest.

## PhD Program

The Philosophy of Science in nursing program is built on a foundation of prior nursing education and prepares the student for original research and theory development. The PhD in Nursing Program is designed to prepare nurse scientists to meet the health needs of a rapidly changing and culturally diverse society. The central focus of the PhD in Nursing Program is to prepare

researchers and teachers who understand how communities evolve, interact, change and how they prescribe, understand and sanction health, illness and health seeking behaviors.

The PhD in Nursing program offers two routes of entry: BSN-PhD or MSN-PhD. Potential students should refer to admission criteria below.

### PhD Admission and Degree Requirements

The applicant for the Doctor of Philosophy in Nursing (PhD) degree must meet the general requirements of the Graduate School and have a Bachelor's degree in Nursing (BSN-PhD entry) or a Master of Science in Nursing degree (MSN-PhD entry) from a program accredited by the National League for Nursing Accrediting Commission (NLNAC) or the Commission on Collegiate Nursing Education (CCNE) or proof of equivalent education at a foreign institution. Applicants must submit to the Office of Graduate Studies official transcripts from each college or university attended.

An applicant whose native language is not English must take the Test of Spoken English (TSE), the Test of English as a Foreign Language (TOEFL), or the International English Language Testing System (IELTS).

- Persons taking the TSE must make a minimum score of 40.
- Persons taking the TOEFL must make a minimum score of 550 on the paper-based test, 213 on the computer-based test, and meet the following criteria on the internet-based test: attain a minimum overall score of 79 and achieve the following minimum scores of subtests: writing: 22; speaking: 21; reading: 20; and listening: 16
- Persons taking the IELTS must make a minimum score of 7.0.

A foreign student wishing to be a graduate research assistant or a graduate teaching assistant will need to take the Test of Spoken English. For admission, the foreign student must also possess a current RN license in the state where the student is participating in clinical activities.

### PhD Admission Status Options

The College of Nursing admission criteria are detailed in the [PhD Program Requirements](#) table.

#### Unconditional Admission

Applicants must meet all criteria for unconditional admission

#### Probationary Admission

Criteria for probationary admission status are designated in the [PhD Program Requirements](#) table. When on probation, a student must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

#### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

#### Deferred Status

Deferred decision is granted when a file is incomplete or when a denied decision is not appropriate.

#### Denial of Admission

An applicant will be denied admission if he/she has less than satisfactory performance on a majority of admission criteria listed in the table below. The PhD Admissions Committee will make a recommendation for denial.

### The PhD Program in Nursing Admission Requirements

Admission Criteria	Unconditional	Probationary [1]
Bachelor's Degree in Nursing (BSN-PhD entry) or Master's Degree in Nursing (MSN-PhD entry) from a National League for Nursing Accrediting Commission (NLNAC) or American Association of Colleges of Nursing's Commission on Collegiate Nursing Education (CCNE) accredited College of Nursing or equivalent.	Evaluated by Associate Dean	Evaluated by Associate Dean
GPA on all bachelor's coursework (BSN-PhD) or on master's coursework (MSN-PhD).	3.0 GPA on a 4.0 scale as calculated by the Graduate School	3.0 GPA on a 4.0 scale as calculated by the Graduate School
GRE for BSN-PhD entry;  GRE waived for MSN-PhD entry	GRE with a total minimum score of: 500 or 153 on verbal; 500 or 144 on quantitative; 500/4 on analytical/analytical writing scores*	Verbal: 400-490 or 146-152;  Quantitative: 400-490 or 140-143;  Analytical Writing: 3.0-3.5;  Analytical: 400-490  (Based on GPA/GRE ratio)
For international students, TSE (Test of Spoken English) or TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System)	TSE: Score of 40 or higher or TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the internet-based test and achieve the following minimum scores of subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16.  IELTS minimum score of 7.0.	TSE: Score of 40 or higher or  TOEFL: Minimum of 550 on paper-based test, 213 on computer-based test, or 79 on the internet-based test and achieve the following minimum scores of subtests: Writing, 22; Speaking, 21; Reading, 20; and Listening, 16.  IELTS minimum score of 7.0.
Graduate level statistics course from an accredited college or university of 3 or more credit hours with a minimum grade of B.	Implement as stated	Implement as stated
Interview*	7 or higher on rating scale of 1-10	6 or less on rating scale of 1-10 Evaluated by Admissions Committee
Written statement of goals*	7 or higher on rating scale of 1-10	6 or less on rating scale of 1-10 Evaluated by Committee
Professional liability insurance.	Evaluated by Associate Dean	Evaluated by Associate Dean
Evidence of current professional nursing licensure/registration in at least one political jurisdiction. Licensure/registration must be maintained throughout the program. If a Phd student is going to perform direct patient care activities or supervise students in clinical agencies, he or she will be required to obtain an RN	Evaluated by Associate Dean	Evaluated by Associate Dean

license in Texas or a compact state.

Two years of clinical experience recommended (BSN-PhD entry)

Evaluated by Associate Dean

Evaluated by Associate Dean

Immunizations required by the College of Nursing.

Evaluated by Associate Dean

Evaluated by Associate Dean

Criminal background check prior to clinical and research activities in health care agencies, which satisfies the Dallas/Fort Worth Hospital Council and the Texas Board of Nurse Examiners.

Evaluated by Associate Dean

Evaluated by Associate Dean

Drug screen prior to clinical and research activities in health care agencies, which satisfies the Dallas/Fort Worth Hospital Council and the Texas Board of Nurse Examiners.

Evaluated by Associate Dean

Evaluated by Associate Dean

\*A new goal statement and a new interview are required with every application.

[1] A student on probation must maintain a 3.0 GPA in the first two semesters of enrollment in the graduate program.

## PhD Degree Requirements

Students are required to have each semester's planned program approved by the Graduate Advisor prior to registration. A minimum of 54 semester hours is required for the degree: 30 hours of core courses, 12 hours of Research Tools, 3-9 hours of individualized area of study, and 9 hours of dissertation.

Students accepted into the BSN-to-PhD entry option may select a clinical focus, an administrative focus, or an educator focus for the master's level courses. Those in the clinical focus will take 32 credit hours at the master's level. Students in the administrative focus will take 27 hours at the master's level. Those in the educator focus will take 31 credit hours at the master's level. BSN-to-PhD Students will complete all PhD requirements.

### PhD Required Courses (Core)

NURS 6301 Theoretical Evolution in Science

NURS 6302 Issues in Studying Health of Culturally Diverse and Vulnerable Populations

NURS 6303 Culture of Science

NURS 6304 Measurement in Culturally Diverse and Vulnerable Populations

NURS 6305 Qualitative Research

NURS 6306 Research Design

NURS 6308 Research Seminar

NURS 6309 Scientific Products: Preparation & Dissemination

NURS 6310 Proposal Development Seminar

NURS 6321 Epidemiology

### Research Tools

12 hours that include 6 hours advanced statistics, 3 hour research practicum, and 3 hour research tool elective

### Individualized area of study

Minimum of 3 hours of individualized study will be planned in collaboration with the Graduate Advisor.

### Dissertation

NURS 6399 Dissertation Graded R/F  
NURS 6699 Dissertation Graded R/F/P  
NURS 6999 Dissertation Graded R/F/P  
NURS 7399 Dissertation Graded R/F/P

### **Electives / Independent Study**

Elective courses may be taken in an area of concentration in other departments.

6170, 6270, 6370, 6470. Independent Study in Nursing  
Graded P/R/F.

6190, 6290, 6390, 6490. Topics in Nursing

### **Diagnostic Evaluation**

Before the completion of the first 18 hours beyond appropriate master's level coursework to assess progress and potential for completion

### **Comprehensive Examination**

Exam scheduled after all coursework and research tools are completed. Guidelines for the comprehensive exam are available in the PhD Student Handbook.

### **Proposal Defense**

Dissertation Committee reviews the study proposal and meets with the student privately to approve or not approve the proposal.

### **Dissertation Defense**

Open meeting during which student presents study findings and responds to questions posed by the dissertation committee and other attendees. Successful defense of the dissertation is the final step toward completion of the doctoral degree.

## **BSN-to-PhD Master's Level Courses**

### **Core Master's Courses taken by all BSN-to-PhD students**

5301. Research in Nursing  
5327. Analysis of Theories for Nursing  
5328. Theory and Research Application in Nursing  
5370. Independent Study

### **Administration Specialty Master's Courses**

5311. Nursing Management in the Health Care Environment  
5339. Roles and Functions of the Nurse Administrator  
5341. Financial Management in Nursing  
5342. Management of Nursing Operations  
5343. Nursing Leadership and Complex Health Care Systems

### **Clinical Specialty Master's Courses**

5303. Psychiatric Management in Advanced Nursing Practice  
5305. Adult Management in Advanced Nursing Practice I OR  
5306. Pediatric Management in Advanced Nursing Practice  
5315. Advanced Pathophysiology for Nursing Practice  
5334. Advanced Pharmacology for Nurse Practitioners  
5418. Advanced Health Assessment in Nursing Practice  
5420. Adult Management in Advanced Nursing Practice II OR  
5442. Primary Care of Pediatric Nursing

## Educator Specialty Master's Courses

5302. Curriculum Development in Nursing  
5309. Teaching/Learning Theories Strategies and Evaluation  
5318. Advanced Pathophysiology for Nursing Practice  
5361. Special Topics in Clinical Practice  
5326. Advanced Health Assessment for Nursing Practice  
5319 Advanced Pharmacology for Nurse Educators

Below is a complete course listing of the MSN, DNP and PhD in Nursing programs. For any questions regarding grading, please see policies and procedures in the graduate section of the Catalog.

## NRST Courses

### NRST5393 – UNT NURSING TRANSFER ELECTIVE

0 Lecture Hours · 0 Lab Hours

### NRST5394 – UNT HEALTH ECONOMICS

0 Lecture Hours · 0 Lab Hours

### NRST5395 – UNT CAPSTONE CULMINATING PROJECT 1

0 Lecture Hours · 0 Lab Hours

### NRST5397 – UNT PROFESSIONAL REPORT CULMINATING PROJECT II

3 Lecture Hours · 0 Lab Hours

### NRST5698 – UNT THESIS

0 Lecture Hours · 0 Lab Hours

## NURS Courses

### NURS5170 – INDEPENDENT STUDY IN NURSING

1 Lecture Hour · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, P, R. Prereq: Permission of instructor. Graduate standing.

### NURS5190 – TOPICS IN NURSING

1 Lecture Hour · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### NURS5204 – NEONATAL NURSING I

2 Lecture Hours · 0 Lab Hours

Clinical management of the high-risk neonate with a focus on the perinatal and transition periods as well as stabilization of the ill newborn at birth. Includes fluid and electrolyte management, nutrition, and identification of the indications and complications associated with invasive skills and procedures relevant to the high-risk neonate. Prerequisite: NURS 5315

### **NURS5270 – INDEPENDENT STUDY IN NURSING**

2 Lecture Hours · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, P, R. Prereq: Permission of instructor. Graduate standing.

### **NURS5290 – TOPICS IN NURSING**

2 Lecture Hours · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS5301 – RESEARCH IN NURSING**

3 Lecture Hours · 0 Lab Hours

Exploration of the research process and critical examination of published studies with emphasis on critical appraisal, interpretation of statistical results, and evidence-based practice. Prerequisite: Graduate Standing.

### **NURS5302 – CURRICULUM DEVELOPMENT AND EVALUATION**

3 Lecture Hours · 0 Lab Hours

Explore the nature of nursing education. Focus on the curriculum process and its application to nursing education programs. Prerequisite: Graduate standing.

### **NURS5303 – PSYCHIATRIC MANAGEMENT IN ADVANCED NURSING PRACTICE**

2 Lecture Hours · 3 Lab Hours

Foundations of clinical management for commonly occurring psychiatric-mental health problems across the lifespan. Prerequisite: NURS 5334 and NURS 5418.

### **NURS5305 – ADULT MANAGEMENT IN ADVANCED NURSING PRACTICE**

2 Lecture Hours · 3 Lab Hours

Foundations of clinical management for commonly occurring conditions of adults in primary care. Prerequisite: NURS 5418, 5334.

### **NURS5306 – PEDIATRIC MANAGEMENT IN ADVANCED NURSING PRACTICE**

2 Lecture Hours · 3 Lab Hours

Foundations of advanced clinical practice in the primary care of children, birth to 21 years with a family centered approach on growth and development, health promotion and management of common health problems. Prerequisite: NURS 5418, 5334.

### **NURS5307 – NEONATAL NURSING FROM BIRTH THROUGH 2 YEARS OLD**

2 Lecture Hours · 3 Lab Hours

Focuses on an interdisciplinary approach to the assessment, management, and coordination of care of patients with commonly encountered health care problems experienced in the Neonatal Intensive Care Unit and after discharge through 2 years of age, along with their families. Prerequisite: NURS 5438.

### **NURS5308 – NURSING INFORMATICS**

3 Lecture Hours · 0 Lab Hours

Focus on application of computer technology that supports the dissemination of health care data, information and knowledge. Selected software packages/applications are presented and used. Prerequisite: Graduate standing.



### **NURS5309 – TEACHING / LEARNING THEORIES, STRATEGIES, AND EVALUATION**

**3** Lecture Hours · **0** Lab Hours

Teaching/learning theories, strategies, and evaluations for educators. Prerequisite: Graduate standing.

### **NURS5311 – NURSING MANAGEMENT IN THE HEALTH CARE ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours

Considers development of theories of leadership and organizational behavior as applied to the health care arena. Prerequisite: NURS 5327 or NURS 5301 or concurrent enrollment.

### **NURS5313 – CLINICAL PROCEDURES FOR ADVANCED PRACTICE NURSES**

**2** Lecture Hours · **3** Lab Hours

A theory and clinical procedures course designed for the Advanced Practice Nurse to acquire skills and procedures in the clinical management of selected patients. Prerequisite: NURS 5334 or Certificate program standing.

### **NURS5314 – INVASIVE PROCEDURES FOR ADVANCED PRACTICE NURSES**

**2** Lecture Hours · **3** Lab Hours

A theory and clinical procedures course designed for the Advanced Practice Nurse to acquire invasive skills and procedures in the clinical management of selected patients. Prerequisite: NURS 5334 or Certificate Program standing.

### **NURS5315 – ADVANCED PATHOPHYSIOLOGY**

**3** Lecture Hours · **0** Lab Hours

This course focuses on developing an advanced knowledge base of pathophysiology. Principles of biochemistry, molecular biology and nutrition are applied to disease processes. Prerequisite: Graduate Standing.

### **NURS5317 – ADVANCED PSYCHOPHARMACOLOGY**

**3** Lecture Hours · **0** Lab Hours

The study of psychopharmacology practice for advanced practice nurses. Prerequisite: APRN (Master's Degree in Nursing, National Certification).

### **NURS5318 – ADVANCED PATHOPHYSIOLOGY FOR NURSE EDUCATORS**

**3** Lecture Hours · **0** Lab Hours

This course focuses on developing an advanced knowledge base of pathophysiology. Principles of advanced physiology and pathophysiology and are applied to disease processes.

### **NURS5319 – ADVANCED PHARMACOLOGY FOR NURSE EDUCATORS**

**3** Lecture Hours · **0** Lab Hours

Study of clinical pharmacological therapeutics for nurse educators.

### **NURS5326 – ADVANCED ASSESSMENT FOR NURSE EDUCATORS**

**2** Lecture Hours · **1** Lab Hour

Apply theoretical foundations and clinical skills in comprehensive health assessment across the lifespan as applies to the nurse educator role.

### **NURS5327 – ANALYSIS OF THEORIES FOR NURSING**



**3 Lecture Hours · 0 Lab Hours**

Critical examination of philosophical and theoretical bases for nursing. Analysis of selected concepts and theories. Prerequisite: Graduate standing.

### **NURS5328 – THEORY AND RESEARCH APPLICATION IN NURSING**

**3 Lecture Hours · 0 Lab Hours**

Integration of theoretical and empirical elements of nursing research with emphasis on proposal development. Prerequisite: NURS 5327 and NURS 5301.

### **NURS5329 – ROLE OF THE NURSE EDUCATOR**

**3 Lecture Hours · 0 Lab Hours**

Investigation of the roles and functions of the nurse educator. Prerequisite: NURS 5301 and NURS 5327.

### **NURS5331 – ADVANCED CLINICAL NURSING PRACTICUM**

**12 Lecture Hours · 0 Lab Hours**

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills, and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4 Prerequisite: NURS 5425 or 5431 or 5436 or 5444 or 5539 or 5546 or 5453 or 5450. Good academic standing (GPA minimum 3.0). Graded F, R, P, W.

### **NURS5332 – ADVANCED CLINICAL NURSING PRACTICUM**

**12 Lecture Hours · 0 Lab Hours**

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills, and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1 to 4. Prerequisites: NURS 5425 or NURS 5431 or NURS 5434 or NURS 5436 or NURS 5444 or NURS 5539 or NURS 5546 or NURS 5453 or 5450. GPA 3.0 and Certificate Program standing. Graded F,R,P,W

### **NURS5334 – ADVANCED PHARMACOLOGY FOR NURSE PRACTITIONERS**

**3 Lecture Hours · 0 Lab Hours**

Study of clinical pharmacological therapeutics for advanced nursing practice. Prerequisite: NURS 5315.

### **NURS5339 – ROLES AND FUNCTIONS OF THE NURSE ADMINISTRATOR**

**1 Lecture Hour · 6 Lab Hours**

Examine and implement administrative and managerial roles in health care organizations. Prerequisite: NURS 5311; NURS 5328 or concurrent enrollment.

### **NURS5340 – MANAGEMENT SEMINAR AND PRACTICE**

**1 Lecture Hour · 6 Lab Hours**

Synthesize management, organizational, and leadership concepts and theories in selected health care settings. Prerequisite: NURS 5339 and 5342.

### **NURS5341 – FINANCIAL MANAGEMENT IN NURSING**

**2 Lecture Hours · 3 Lab Hours**

Analyze and apply financial management concepts to financial planning, budgeting, and reimbursement systems in health care. Prerequisite: NURS 5311 or MANA 5312; NURS 5301 or concurrent enrollment.

### **NURS5342 – MANAGEMENT OF NURSING OPERATIONS**

**2 Lecture Hours · 3 Lab Hours**

Examine effective strategic planning for health care systems. Prerequisite: NURS 5341.

## **NURS5343 – NURSING LEADERSHIP AND COMPLEX HEALTH CARE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Analyze leadership strategies in current and predicted health care systems including dimensions of workforce and workplace issues, leadership, and evidenced-based decision-making. Prerequisite: NURS 5327; NURS 5311 or MANA 5312 or concurrent enrollment.

## **NURS5347 – ADVANCED PRACTICE NURSING WOMEN'S HEALTH**

**3** Lecture Hours · **0** Lab Hours

Addresses concepts of health care of female patients throughout the life span. Explores the physiology of the reproductive continuum, including childbearing and clinical management approaches specific to the health care of women. Prerequisites: NURS 5418 or NURS 5316 or permission of instructor.

## **NURS5348 – NURSING CARE AT THE END OF LIFE**

**3** Lecture Hours · **0** Lab Hours

Addresses concepts of palliative care of patients with life limiting disease and their families. Explores the physiology of end stage disease processes, clinical approaches to pain and symptom management, societal issues and trends in end of life care, models of care delivery and the impact of personal values and beliefs about death. Prerequisite: Graduate Standing.

## **NURS5350 – ROLE OF THE NURSE IN ADVANCED PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Theory and application of the multiple roles of the advanced practice nurse within the health care system. Prerequisite: Graduate Standing.

## **NURS5360 – SIMULATION APPLICATION IN NURSING**

**2** Lecture Hours · **3** Lab Hours

Application of simulation in healthcare. Prerequisite: Graduate Standing.

## **NURS5361 – SPECIAL TOPICS IN CLINICAL PRACTICE**

**2** Lecture Hours · **3** Lab Hours

Advanced clinical practice with selected targeted patient populations. Prerequisite: NURS 5318, NURS 5319, NURS 5326.

## **NURS5362 – TEACHING PRACTICUM**

**0** Lecture Hours · **12** Lab Hours

The ratio of credit to clinical hours is 1:4. Nursing education preceptorship in selected health care sites with opportunities to apply clinical and educational knowledge, skills, and concepts in a guided, progressive context of nursing education. Prerequisite: NURS 5308 and NURS 5361; NURS 5329 or concurrent enrollment. Good academic standing (GPA 3.0). Graded: F,R,P,W.

## **NURS5370 – INDEPENDENT STUDY IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F,R,P,W. Permission of instructor. Graduate standing.

## **NURS5380 – INDEPENDENT STUDY IN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Detailed study and participation in a faculty sponsored research project. Topic and mode of study are agreed upon by the student and instructor prior to registration. Permission of instructor. Graded F,R,P,W.

### **NURS5382 – NURSING AND HEALTH CARE POLICY: ISSUES AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Analyze historical, current, and predicted global, national, state, and local health care policy processes. Prerequisite: NURS 5327 or NURS 5301.

### **NURS5390 – TOPICS IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS5393 – ADVANCED CLINICAL NURSING PRACTICE I**

**1** Lecture Hour · **6** Lab Hours

Development of advanced knowledge base of specialized clinical concepts and the application of this knowledge in selected clinical areas. Prerequisite: Graduate standing.

### **NURS5394 – ADVANCED CLINICAL NURSING PRACTICE II**

**1** Lecture Hour · **6** Lab Hours

Expanded background in a selected clinical area with emphasis on analysis and synthesis of clinical data, clinical judgment, and management of patients and families' care. Prerequisite: NURS 5393.

### **NURS5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F,R.

### **NURS5418 – ADVANCED HEALTH ASSESSMENT AND DIAGNOSTIC REASONING**

**2** Lecture Hours · **6** Lab Hours

Apply theoretical foundations and clinical skills in comprehensive health assessment across the lifespan. Prerequisite: NURS 5301 and NURS 5334 or concurrent enrollment. These items must be cleared with the Clinical Coordinator: Unencumbered Texas RN License; Current CPR (Cardiopulmonary Resuscitation) card; Current PALS (Pediatric Advanced Life Support) card (Acute Care Pediatric only); Current immunizations.

### **NURS5424 – PSYCHIATRIC-MENTAL HEALTH NURSING I**

**2** Lecture Hours · **6** Lab Hours

Advanced clinical management of individuals, families, and groups at risk for and experiencing acute and chronic psychiatric disorders. Prerequisite: NURS 5303; NURS 5305 or concurrent enrollment, or Certificate Program standing.

### **NURS5425 – PSYCHIATRIC-MENTAL HEALTH NURSING II**

**2** Lecture Hours · **6** Lab Hours

Advanced clinical management of individuals, families, and groups at risk for and experiencing complex psychiatric disorders. Prerequisite: NURS 5328 and NURS 5424; NURS 5306 or concurrent enrollment.

### **NURS5430 – FAMILY NURSING I**

**2** Lecture Hours · **6** Lab Hours

Focus on advanced knowledge of acute, chronic, and complex health problems in the primary care management of individuals across the lifespan. Prerequisite: NURS 5305 and 5306; 5313 or concurrent enrollment or Certificate Program standing.

### **NURS5431 – FAMILY NURSING II**

**2 Lecture Hours · 6 Lab Hours**

Focus on advanced knowledge in the management of patients and families throughout the lifespan. Prerequisite: NURS 5328 and 5430; 5303 or concurrent enrollment.

### **NURS5433 – EMERGENCY NURSE PRACTITIONER ACROSS THE LIFESPAN I**

**2 Lecture Hours · 6 Lab Hours**

Advanced clinical management of individuals across the lifespan with episodic and urgent health care needs. Prerequisite: NURS 5305 and 5306; 5314 or concurrent enrollment.

### **NURS5434 – EMERGENCY NURSE PRACTITIONER ACROSS THE LIFESPAN II**

**2 Lecture Hours · 6 Lab Hours**

Advanced clinical management of individuals across the lifespan with emergent health care needs requiring resuscitative measures for potentially life threatening alterations. Prerequisite: NURS 5328 and 5433; 5303 or concurrent enrollment.

### **NURS5435 – ACUTE CARE NURSING I**

**2 Lecture Hours · 6 Lab Hours**

Focuses on advanced knowledge of medical-surgical nursing in managing adults with secondary and tertiary health care needs. Prerequisite: NURS 5305; 5314 or concurrent enrollment or Certificate Program standing.

### **NURS5436 – ACUTE CARE NURSING II**

**2 Lecture Hours · 6 Lab Hours**

Focuses on an interdisciplinary approach to the management and coordination of secondary and tertiary care for adults with complex multisystem dysfunction. Prerequisite: NURS 5328, 5435; 5303 or concurrent enrollment.

### **NURS5438 – PERINATAL/NEONATAL NURSING OF HIGH-RISK MATERNAL/FETAL DYAD**

**2 Lecture Hours · 6 Lab Hours**

Focuses on advanced knowledge of perinatal/neonatal nursing in the high-risk pregnancy and neonate with secondary and tertiary health care needs along with their families. Prerequisite: NURS 5314, 5418 or permission of instructor or Certificate Program standing.

### **NURS5441 – ACUTE CARE PEDIATRIC NURSING**

**2 Lecture Hours · 6 Lab Hours**

Focus is on advanced, interdisciplinary practice to assess, diagnose, and manage acute and critical, single and multi-system health problems of children birth to 21 years in secondary and tertiary care settings. Prerequisite: NURS 5306; 5314, 5442 or concurrent enrollment; or Certificate Program standing.

### **NURS5442 – PRIMARY CARE PEDIATRIC NURSING**

**2 Lecture Hours · 6 Lab Hours**

Focus is on integration of acquired theoretical and empirical knowledge in the assessment, diagnosis, and management of multiple common acute and stable chronic health problems in children birth to 21 years. Prerequisite: NURS 5306; 5313 or 5314 or concurrent enrollment; or Certificate Program standing.

### **NURS5444 – ADVANCED NURSING CARE OF PEDIATRIC PATIENTS WITH COMPLEX PROBLEMS**

**2 Lecture Hours · 6 Lab Hours**

Clinical management of complex health problems of pediatric patients birth to 21 years within the family system. Prerequisite: NURS 5328; NURS 5441 or NURS 5442 or NURS 5539; and NURS 5303 or

concurrent enrollment; or Certificate Program standing.

### **NURS5446 – NEONATAL NURSING II**

**4** Lecture Hours · **0** Lab Hours

Clinical management of the high-risk neonate using evidence based-knowledge, research, pharmacological, and technological therapies. Focus on the following systems: pulmonary, cardiovascular, gastrointestinal, hepatic, renal, and neurologic. Prerequisite: NURS 5204

### **NURS5447 – NEONATAL NURSING III**

**4** Lecture Hours · **0** Lab Hours

Clinical management of the high-risk neonate using evidence based knowledge, research, pharmacological, and technological therapies. Focus on the following systems: hematologic, skeletal, integumentary, immunologic, and metabolic/endocrine. Includes clinical management of complex health problems affecting infants (birth to 2 years of age) and their families including chronic care and ethical issues. Prerequisite: NURS 5446

### **NURS5450 – NEONATAL NP CLINICAL PRACTICE**

**0** Lecture Hours · **16** Lab Hours

Integration of clinical management of the high-risk neonate through clinical preceptorships in selected health practice sites with application of knowledge, skills and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4. Prerequisite: NURS 5334 and NURS 5316 and NURS 5204.

### **NURS5451 – ADULT/GERONTOLOGY PRIMARY CARE NURSING I**

**2** Lecture Hours · **6** Lab Hours

Focus on advanced knowledge of chronic and complex health problems in the primary care management including age groups from adolescence through old age. Prerequisite: NURS 5305

### **NURS5453 – ADULT/GERONTOLOGY NURSING III**

**1** Lecture Hour · **9** Lab Hours

Continued focus on advanced knowledge and clinical practice in the management of adults of all ages, their families, and their communities. Prerequisite: NURS 5552

### **NURS5470 – INDEPENDENT STUDY IN NURSING**

**4** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Prereq: Permission of instructor. Graded F,R,P,W.

### **NURS5525 – PSYCHIATRIC-MENTAL HEALTH NURSING**

**3** Lecture Hours · **6** Lab Hours

Focus on diagnosis and pharmacological and nonpharmacological management of individuals, families and groups experiencing mental illnesses and addictions. Prerequisite: NURS 5424, 5328 or concurrent enrollment.

### **NURS5532 – FAMILY NURSING II**

**3** Lecture Hours · **6** Lab Hours

A continuation of NURS 5431 with progressive analysis and clinical nursing judgment and management of families in health and illness. Prerequisite: NURS 5431, 5328 or concurrent enrollment.

### **NURS5536 – ACUTE CARE NURSING II**

**3** Lecture Hours · **6** Lab Hours

Focuses on an interdisciplinary approach to the management and coordination of secondary and tertiary care for adults with complex multisystem dysfunction. Prerequisite: NURS 5435, 5328 or concurrent enrollment.

### **NURS5537 – NEONATAL NURSING II**

**5** Lecture Hours · **0** Lab Hours

Clinical management of the high-risk neonate using evidence based-knowledge, research, pharmacological, and technological therapies. Focus on the following systems: pulmonary, cardiovascular, gastrointestinal, hepatic, renal, and neurologic. Prerequisite: NURS 5204

### **NURS5539 – NEONATAL NURSING**

**3** Lecture Hours · **6** Lab Hours

Focuses on an interdisciplinary approach to the assessment, management, and coordination of secondary and tertiary care of neonates with complex multi-system dysfunction, along with their families. Prerequisite: NURS 5438.

### **NURS5546 – ADULT AND GERONTOLOGICAL NURSING**

**3** Lecture Hours · **6** Lab Hours

Focus on advanced knowledge in the management of adults (age 12 and older), their families, and their communities with emphasis on special problems of adolescents, women, and elders in a variety of settings. Prerequisite: NURS 5328, 5420; and NURS 5303 or concurrent enrollment.

### **NURS5552 – ADULT/GERONTOLOGY NURSING II**

**2** Lecture Hours · **9** Lab Hours

Focus on advanced knowledge in the management of adults (age 12 and older), their families, and their communities with emphasis on special problems of the adolescent, women, and elders in a variety of settings. Prerequisite: NURS 5451

### **NURS5631 – ADVANCED CLINICAL NURSING PRACTICUM**

**24** Lecture Hours · **0** Lab Hours

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4. Prerequisite: NURS 5425 or 5431 or 5436 or 5444 or 5539 or 5546 or 5453 or 5450. Good academic standing (GPA 3.0). Graded F,R,P,W.

### **NURS5632 – ADVANCED CLINICAL NURSING PRACTICUM - CERT**

**24** Lecture Hours · **0** Lab Hours

Clinical preceptorships in selected health practice sites with opportunities to apply knowledge, skills, and concepts in a guided, progressive context of advanced nursing practice. The ratio of credit to clinical hours is 1:4. Prerequisite: NURS 5425 or 5431 or 5434 or 5436 or 5539 or 5444 or 5546 or 5453 or 5450. Good academic standing and Certificate Program standing (3.0 GPA) Graded: F,R,P,W

### **NURS5670 – INDEPENDENT STUDY IN NURSING**

**6** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Prereq: Permission of instructor. Graded F,R,P,W.

### **NURS5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P.

### **NURS6170 – INDEPENDENT STUDY IN NURSING**

1 Lecture Hour · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F,R, P.

### **NURS6190 – SPECIAL TOPICS IN NURSING**

1 Lecture Hour · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6270 – INDEPENDENT STUDY IN NURSING**

2 Lecture Hours · 0 Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, R, P.

### **NURS6290 – TOPICS IN NURSING**

2 Lecture Hours · 0 Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6301 – THEORETICAL EVOLUTION IN SCIENCE**

3 Lecture Hours · 0 Lab Hours

Philosophies of science and epistemologies, their influence on knowledge development for nursing practice, and strategies for theory development and analysis. Prerequisite: Graduate standing.

### **NURS6302 – ISSUES IN STUDYING THE HEALTH OF CULTURALLY DIVERSE AND VULNERABLE POPULATIONS**

3 Lecture Hours · 0 Lab Hours

Social and cultural factors affecting health among sub-populations defined by age, education, gender, ethnicity, culture, religion, occupation, vulnerability, income and geography. Prerequisite: Graduate standing. DNP or PhD program.

### **NURS6303 – CULTURE OF SCIENCE**

3 Lecture Hours · 0 Lab Hours

Professional, financial, socio-political, ethical and legal issues associated with the conduct of research and the relationships between research and health policy development and implementation. Prerequisite: Graduate standing.

### **NURS6304 – MEASUREMENT IN CULTURALLY DIVERSE AND VULNERABLE POPULATIONS**

3 Lecture Hours · 0 Lab Hours

Evaluate measurement tools/instruments for studying culturally diverse and vulnerable populations. Prerequisite: NURS 6301, Theoretical Evolution in Science, or permission of instructor. Course is predicated on prior learning related to concept analysis, basic statistics including correlation.

### **NURS6305 – QUALITATIVE RESEARCH**

3 Lecture Hours · 0 Lab Hours

Philosophical foundation for and methodological issues in using qualitative approaches for scientific and knowledge development. Prerequisite: Graduate standing.

### **NURS6306 – RESEARCH DESIGN**

3 Lecture Hours · 0 Lab Hours



Application of advanced nursing research methods to design studies that improve health outcomes in culturally diverse populations. Prerequisites: NURS 6303 and NURS 6304 or permission of instructor.

### **NURS6308 – RESEARCH SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Implements the research process with faculty guidance. Learning activities based on student and faculty interest. May be repeated to meet student learning needs. Prerequisite: Recommendation of the advisor; permission of the instructor.

### **NURS6309 – SCIENTIFIC PRODUCTS: PREPARATION DISSEMINATION (DELIVERY)**

**3** Lecture Hours · **0** Lab Hours

Provides experiences in the development of scientific products for dissemination. Prerequisite: Graduate standing.

### **NURS6310 – PROPOSAL DEVELOPMENT SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Development and critique of doctoral dissertation proposal. May be repeated. Prerequisite: Successful completion of diagnostic evaluation, NURS 6308 (Research Seminar).

### **NURS6318 – PARAMETRIC STATISTICS FOR HEALTHCARE RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Advanced knowledge and skills to use biostatistics effectively in different research designs and data analyses. Use of a statistical software package to manipulate datasets and perform statistical analyses. Emphasis will be placed on parametric statistical methods for complex research questions and designs. Prerequisite of a graduate-level introductory statistics course.

### **NURS6319 – PSYCHOMETRIC AND NONPARAMETRIC STATISTICS FOR HEALTHCARE RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Basic knowledge and skills to select the appropriate biostatistical analysis for different research designs, analyze data, interpret statistical results, and understand research articles in professional journals. Emphasis will be placed on reliability and validity of instruments commonly used in healthcare; outcome measurement in health care; common research designs in health care research; nonparametric statistics for dependent samples and independent samples; logistic regression; and survival analysis. Prerequisite: Graduate-level introductory statistics course.

### **NURS6320 – LEADERSHIP IN HEALTH CARE SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Focuses on leadership and organizational theories and financial principles to promote quality improvement initiatives in a selected practice. DNP or PhD Program.

### **NURS6321 – EPIDEMIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Principles of epidemiology: Introduces the basic principles and biostatistical methods of epidemiology and demonstrates their applicability to population health. Prerequisite: Doctoral standing. PhD or DNP Program.

### **NURS6323 – PRACTICE SCHOLARSHIP**

**3** Lecture Hours · **0** Lab Hours

Focuses on clinical scholarship and analytical methods for evidence-based practice. Prerequisite: NURS 6320 or concurrent enrollment.



### **NURS6324 – CLINICAL INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Focuses on the selection and use of information systems/technology to provide health care and to evaluate patient care programs, outcomes, and systems. Prerequisite: Doctoral standing. DNP or PhD Program.

### **NURS6325 – ADVANCED PRACTICE NURSING FOR SELECTED POPULATIONS**

**3** Lecture Hours · **0** Lab Hours

Apply advanced concepts in pathophysiology and technology in managing selected patient populations. Prerequisite: DNP Program.

### **NURS6326 – PRACTICE SCHOLARSHIP**

**3** Lecture Hours · **0** Lab Hours

Seminar to develop a practice scholarship project. Prerequisite: NURS 6323.

### **NURS6370 – INDEPENDENT STUDY IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, R, P.

### **NURS6382 – HEALTH CARE POLICY**

**3** Lecture Hours · **0** Lab Hours

Analyze historical, current, and predicted global, national, state, and local health care policy processes. Prerequisite: Doctoral standing.

### **NURS6390 – TOPICS IN NURSING**

**3** Lecture Hours · **0** Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R. Prerequisite: Admission to candidacy for the Doctor in Nursing degree.

### **NURS6470 – INDEPENDENT STUDY IN NURSING**

**4** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary. Graded F, R, P.

### **NURS6490 – TOPICS IN NURSING**

**4** Lecture Hours · **0** Lab Hours

Selected topics in advanced nursing. May be repeated for credit as topics change.

### **NURS6620 – DNP PRACTICUM I**

**18** Lecture Hours · **0** Lab Hours

270 Clinical Hours. Emphasis on the development of advance practice expertise in the management of health problems in selected populations. Prereq: NURS 6326 or concurrent enrollment. Good academic standing (GPA 3.0). Grade: F,R,P,W.

## **NURS6621 – DNP PRACTICUM II**

**18** Lecture Hours · **0** Lab Hours

270 Clinical Hours - Emphasis on the development of advance clinical practice expertise in the management of health problems in selected populations. Preq: NURS 6620 and DNP status.

## **NURS6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded F, R, P, W. Prerequisite: Admission to candidacy for the Doctor in Nursing degree.

## **NURS6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded F, R, P. Prerequisite: Admission to candidacy for the Doctor in Nursing degree.

## **NURS7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **NURS-IS Courses**

### **NURS-IS5370 – INDEPENDENT STUDY IN NURSING**

**8** Lecture Hours · **0** Lab Hours

Detailed in-depth study in a specific topic area. Topic and mode of study are agreed upon by student(s) and instructor prior to registration. May be repeated for credit when topics vary.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[Biology](#)

[Chemistry &  
Biochemistry](#)

[Earth and Environmental  
Sciences](#)

[Interdisciplinary Science](#)

[Mathematics](#)

[Physics](#)

[Psychology](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Biology

College of Science

**Chair Jonathan Campbell**

**Chair Allan Clay Clark**

**Chair Laura Gough**

Web [www.uta.edu/biology/](http://www.uta.edu/biology/)

Phone 817.272.2871

Fax 817.272.2855

[337 Life Sciences](#)

---

### Degrees / Certificates

#### Master's Degrees

Biology, M.S.

#### Doctoral Degrees

Quantitative Biology, B.S to Ph.D.

Quantitative Biology, Ph.D.

---

### Graduate Faculty

[Todd Castoe](#)  
[Woo-Suk Chang](#)  
[Allan Clay Clark](#)  
[Jeffery Demuth](#)  
[John Fondon](#)  
[Matthew Fujita](#)  
[Jason Kubinak](#)  
[Maeli Melotto](#)  
[Mark Pellegrino](#)  
[Jorge Rodrigues](#)  
[Eric Smith](#)  
[Matthew Walsh](#)  
[Sen Xu](#)  
[Kai Zhu](#)

#### Professor

[Jonathan Campbell](#)  
[Paul Chippindale](#)  
[Thomas Chrzanowski](#)  
[Daniel Formanowicz](#)  
[Bernard Frye](#)  
[James Grover](#)  
[Robert McMahon](#)  
[James Robinson](#)

#### Associate Professor

[David Bernard](#)  
[Esther Betran](#)  
[Laura Gough](#)  
[Sophia Passy](#)  
[Michael Roner](#)

#### Assistant Professor

[Shawn Christensen](#)  
[Cedric Feschotte](#)  
[Julian Hurdle](#)  
[Laura Mydlarz](#)  
[Andre Pires Da Silva](#)  
[Ellen Pritham](#)

---

### Graduate Advisors

#### [Gloria Burlingham](#)

*Biology, M.S.*  
*Biology, Non-Degree Seeking*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

#### [Paul Chippindale](#)

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

#### [Shawn Christensen](#)

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

#### [Michael Roner](#)

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

---

### Department Information

#### Courses

## Department Information

#### Objective

#### Admission

- [Master of Science](#)
- [Doctor of Philosophy](#)
- [B.S. - Ph.D. Track Students](#)
- [Ph.D. Students](#)

#### Degree Requirements

- [Master of Science](#)
- [Doctor of Philosophy](#)

#### Objective

The program leading to the degree of Master of Science in biology is designed to provide graduate education that will prepare students for vocations in industry, government, and teaching, and to pursue further graduate education leading to the doctorate. The doctoral program is designed to train students to apply sophisticated quantitative techniques to solving basic and applied problems in biology. Students in this program will attain substantially greater quantitative skills than in traditional doctoral programs in the biological sciences, providing them with a competitive advantage in business, industry, government, and academia.

## Admission

The following are minimal requirements for entrance into the graduate program in Biology. However, satisfying or exceeding these requirements does not guarantee admission to the program. Admission to the program is determined solely by the Biology Graduate Studies Committee and the Graduate School and is based on an evaluation of all pertinent aspects of an applicant's record.

### Master of Science

Admission status in the Master of Science program is determined as follows:

#### Unconditional Admission

Decisions are based on consideration of all the information listed below and are not based on any single criterion alone.

1. A Bachelor's degree in Biology or a Bachelor's degree in some other discipline with at least 12 hours of advanced level coursework (junior or senior level courses) in Biology.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School. Applicants overall GPA in the Sciences and within Biology are also considered.
3. A satisfactory score on the Verbal and Quantitative sections of the Graduate Record Exam. Successful students tend to have a minimum combined total score of 1000 on the Verbal and Quantitative sections, with strong performance on the Quantitative section of the GRE exam.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential for success in graduate school.
5. Evidence of previous research experience may also be considered.
6. International students whose native language is not English must provide a score on the Test of Spoken English (TSE) of at least 45, a minimum score of 23 on the Speaking portion of the TOEFL iBT exam or a minimum score of 7 on the Speaking portion of the IELTS exam.

#### Denial of Admission

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria listed above.

#### Probationary Admission

If an applicant does not meet a majority of standards for unconditional admission outlined above, he or she may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in his/her first 12 hours of graduate coursework at UT Arlington.

#### Deferred and Provisional Admission

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

## **Fellowships and Scholarships**

Students that are unconditionally admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

## **Doctor of Philosophy**

Students interested in pursuing the Ph.D. in the Biology Department may apply for the B.S. - Ph.D. Track or the doctoral program directly depending on their background. The B.S. - Ph.D. Track is the point of entry into doctoral studies for students with a Bachelor's degree in Biology, but without 30 hours of graduate level coursework in Biology or a master's degree in Biology. Students who have already accomplished these goals may apply directly for the doctoral program as Ph.D. students. Degree requirements are the same for both groups (see below).

## **B.S. - Ph.D. Track Students**

Admission status in the B.S. - Ph.D. Track program is determined as follows:

### **Unconditional Admission**

Decisions are based on consideration of all the information listed below and are not based on any single criterion alone.

1. A Bachelor's degree in Biology or a Bachelor's degree in some other discipline with at least 12 hours of advanced level coursework (junior or senior level courses) in Biology.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School. Applicants overall GPA in the Sciences and within Biology are also considered.
3. A satisfactory score on the Verbal and Quantitative sections of the Graduate Record Exam. Successful students tend to have a minimum combined total score of 1100 on the Verbal and Quantitative sections, with strong performance on the Quantitative section of the GRE exam.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential for success in graduate school.
5. Evidence of previous research experience may also be considered.
6. International students whose native language is not English must provide a score on the Test of Spoken English (TSE) of at least 45, a minimum score of 23 on the Speaking portion of the TOEFL iBT exam or a minimum score of 7 on the Speaking portion of the IELTS exam.

### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria listed above.

### **Probationary Admission**

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

### **Deferred and Provisional Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the

admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Fellowships and Scholarships**

Students that are unconditionally admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

### **Ph.D. Students**

Admission status in the doctoral program is determined as follows:

#### **Unconditional Admission**

Decisions are based on consideration of all the information listed below and are not based on any single criterion alone.

1. A master's degree in Biology or at least 30 hours of graduate level coursework in Biology.
2. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School. If an Applicant has a Master's degree, the GPA from their Bachelor's degree, as calculated by the Graduate School, will also be considered. If they have 30 hours of graduate coursework but no degree, the GPA from that 30 hours, as calculated by the Graduate School, will also be considered.
3. A satisfactory score on the Verbal and Quantitative sections of the Graduate Record Exam. Successful students tend to have a minimum combined total score of 1100 on the Verbal and Quantitative sections, with strong performance on the Quantitative section of the GRE exam.
4. Favorable letters of recommendation from at least three individuals able to assess the applicant's potential for success in a doctoral program in quantitative biology.
5. Evidence of previous research experience including publications resulting from previous graduate work may also be considered.
6. International students whose native language is not English must provide a score on the Test of Spoken English (TSE) of at least 45, a minimum score of 23 on the Speaking portion of the TOEFL iBT exam, or a minimum score of 7 on the Speaking portion of the IELTS exam.

#### **Denial of Admission**

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria listed above.

#### **Probationary Admission**

The Department of Biology does not as a matter of course admit doctoral students on a probationary basis. Under exceptional circumstances, an applicant that does not meet the standards for unconditional admission outlined above, may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

#### **Deferred and Provisional Admission**

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.



## Fellowships and Scholarships

Students that have no provisional admission conditions to meet will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

## Degree Requirements

Supporting work outside the student's major area may be taken in botany, chemistry, earth & environmental sciences, mathematics, microbiology, physics, and zoology. Approved courses in city and regional planning, civil engineering, environmental science and engineering, philosophy, psychology, and sociology may also be taken in support of the student's program. Subject to written approval by the Graduate Advisor and within the limitations stated in the General Graduate School Regulations, a student may take up to nine hours of coursework from among courses listed under Biology at the 3000 or 4000 levels.

## Master of Science

Non-thesis and thesis options are offered. The non-thesis option is designed to meet the needs of practicing teachers or those intending to enter the teaching profession. Students enrolled in the non-thesis option are required to complete 36 hours, including 24 hours of formal coursework in biology plus two hours of 5101, 5391, and sufficient additional hours to complete course requirements. Students enrolled in the thesis option are required to complete 30 hours, including 18 hours of formal coursework (of which BIOL 5314 is required), two hours of 5101, 5698, and sufficient additional hours to complete degree requirements.

## Doctor of Philosophy

The degree of Doctor of Philosophy in Quantitative Biology requires distinguished attainment both in scholarship and in research. In addition to meeting the minimum requirements of a planned course of study, the ultimate basis for conferring the degree must be the demonstrated ability to do independent and creative work and the exhibition of a profound grasp of the subject matter within the field.

**Mathematics:** Students will be expected to have (or complete during their first year of residence) a strong quantitative background including a formal course in differential and integral calculus (i.e., Calculus I).

**General Course Requirements:** A total of 60 credit hours should normally be completed including 24 hours of required and elective courses, and 36 hours of research courses. All students in the program are required to take BIOL 5314 (Biometry), Professional Development (BIOL 5102) and two seminar courses (2 x BIOL 5101) as part of their required courses.

**Other requirements:** Each student will make three research presentations that are open to the entire department. These may include the proposal defense, a research progress report, and the dissertation defense.

**Biology Tracks:** Students should follow one of the Biology Tracks described below: Ecology and Evolution, Genome Biology, or Microbiology and Molecular Biology.

**Track Specific Quantitative Requirements:**

**Ecology and Evolution:** Students in this track are required to take Advanced Biometry (BIOL 5361) and Experimental Design (BIOL 5362). They will also be expected to have (or complete during their first year of residence) an additional calculus course (i.e., Calculus II).

**Genome Biology:** Students in this track are required to take one of the following courses in quantitative biology: Bioinformatics (BIOL 5340), Genetics Methods Lab (BIOL 5420), Molecular



Evolution (BIOL 5336), or Population Genetics (BIOL 5364).

Microbiology and Molecular Biology: Students in this track are required to take one of the following courses in quantitative biology: Bioinformatics (BIOL 5340), Biological Modeling (BIOL 5333), or Methods in Molecular Microbiology (BIOL 5421).

Track Specific Additional Courses:

Ecology and Evolution: Students in this track are required to take 6 credit hours from among the following courses: Amphibian Biology (BIOL 5344), Behavioral Ecology (BIOL 5337), Biogeography (BIOL 5320), Biological Modeling (BIOL 5333), Community Ecology (BIOL 5315), Conservation Biology (BIOL 5350), Environmental Microbiology (BIOL 5351), Evolution (BIOL 5311), Landscape Ecology (BIOL 5328), Limnology (BIOL 5354), Marine Biology (BIOL 5357), Plant Ecology (BIOL 5325), Reptile Biology (BIOL 5310), Theoretical Systematics (BIOL 5367), Wetlands Ecology (BIOL 5326), or as advised by their supervisory committee.

Genome Biology: Students in this track are required to take 9 credit hours from among the following courses: Advanced Genetics (5312), Advanced Molecular Biology (5331), Developmental Biology (5330), Essentials of Genomics (5335), Evolution (5311), Evolution of Development (5313), Genome Structure and Dynamics (5308), Human Genetics (5319), Mechanisms and Regulation of Mobile DNA (5334), and Mobile DNA and Genome Evolution (5339), or as advised by their supervisory committee.

Microbiology and Molecular Biology: Students in this track are required to take 9 credit hours from among the following courses including: Advanced Molecular Biology (BIOL 5330), Environmental Microbiology (5351), Immunology (BIOL 5309), Microbial Genetics (BIOL 5302), Microbial Physiology (BIOL 5445), and Virology (BIOL 5304), or as advised by their supervisory committee.

Additional Courses: Students in the program are required to take 6 hours of additional courses as advised by their supervisory committee.

Research hours: Finally, 36 hours of research, including 9 hours of dissertation in the final semester (BIOL 6999), are required from among the following courses: BIOL 5101, 5200, 5291, 5391, 5193-5693, 5398, 5698, or 5998, or BIOL 6191, 6291, 6391, 6491, 6591, or 6691 (these courses can be repeated for credit).

## BIOL Courses

### BIOL5101 – SPECIAL TOPICS IN BIOLOGY

1 Lecture Hour · 0 Lab Hours

Seminar on significant biological research. May be repeated for credit. Prerequisite: consent of the instructor.

### BIOL5102 – PROFESSIONAL DEVELOPMENT

1 Lecture Hour · 0 Lab Hours

This course will provide senior graduate students with important information regarding various aspects of their professional development including job searching, interviewing, stress and time management, and professional ethics.

### BIOL5193 – RESEARCH IN BIOLOGY

1 Lecture Hour · 0 Lab Hours

Conference course in which the student undertakes intensive investigation of topics under the supervision of a staff member. Prerequisite: consent of the instructor. Graded P/F/R.

### BIOL5291 – INDIVIDUAL PROBLEMS IN BIOLOGY

**2 Lecture Hours · 0 Lab Hours**

Individual research projects supervised by a faculty member. Prerequisite: consent of the instructor.

### **BIOL5293 – RESEARCH**

**2 Lecture Hours · 0 Lab Hours**

### **BIOL5301 – LABORATORY ROTATION**

**6 Lecture Hours · 0 Lab Hours**

This course is an elective designed to enable students to choose a major advisor and laboratory. Rotations among two or three faculty laboratories will familiarize students with faculty research interests, sharpen individual research skills, and expose students to different study systems, instruments, and research methods. May only be taken once for credit by MS students; may be repeated for credit once by Ph.D. students.

### **BIOL5302 – MICROBIAL GENETICS**

**3 Lecture Hours · 0 Lab Hours**

Consideration of the nature, expression and regulation of the genetic processes in micro-organisms. Prerequisites: BIOL 2451 and 3315 or consent of the instructor.

### **BIOL5304 – VIROLOGY**

**3 Lecture Hours · 0 Lab Hours**

The nature, reproduction and host-cell interactions of viruses and animals. Emphasizes molecular aspects of viral replication and the molecular basis of pathogenesis. Prerequisite: consent of the instructor.

### **BIOL5306 – SCIENTIFIC WRITING**

**3 Lecture Hours · 0 Lab Hours**

Discussion and critique of student's writing in peer response workshop groups. This course offers the opportunity for students to learn how to identify and fix problems in scientific texts. In order to enroll in this course, students must be actively writing a paper, proposal, poster, dissertation, or any other scientific text. Instructor's permission to enroll in the course is required.

### **BIOL5308 – GENOME STRUCTURE AND DYNAMICS**

**3 Lecture Hours · 0 Lab Hours**

This course will describe how genes and genomes are organized in a variety of species from all kingdoms of life and will provide a detailed overview of the molecular mechanisms underlying the function and evolution of genomes. Particular emphasis will be given to the human genome project and its biomedical implications. Prerequisite: BIOL 3315.

### **BIOL5309 – IMMUNOBIOLOGY**

**3 Lecture Hours · 0 Lab Hours**

This course is designed to acquaint students with the cellular processes involved in the generation of an immune response. It will provide students with detailed knowledge of the cells and organs of the immune system, their organization and diversity and their specialized functions at different anatomical locations. The importance of immune cell receptors and cytokines in cellular interactions and co-ordination of immunological mechanisms is also emphasized.

### **BIOL5310 – SELECTED TOPICS IN BIOLOGY**

**3 Lecture Hours · 0 Lab Hours**

Topics may vary depending on the needs and interests of the students. May be repeated for credit. Prerequisite: consent of the student's thesis committee and the current course instructor.

### **BIOL5311 – EVOLUTION**

**3** Lecture Hours · **0** Lab Hours

Study of the origin of living systems and the mechanism of their evolution. Prerequisite: BIOL 3315 or equivalent or consent of the instructor.

### **BIOL5312 – ADVANCED GENETICS**

**3** Lecture Hours · **0** Lab Hours

Mechanisms of transmission and function of genetic material. Covers fundamental concepts in transmission genetics including: genotype/phenotype relationships; inheritance; linkage; genome organization; and gene expression. Experimental and quantitative approaches to genetic analyses are emphasized. Prerequisite: consent of the instructor.

### **BIOL5313 – EVOLUTION OF DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

The diversity of animal and plant forms can largely be traced to evolutionary changes in the genes that control the development of the embryo. Changes in when and where these genes are active have been important in the diversification of body form. A major goal of this course is to provide an interdisciplinary framework for studies related to evolution, genetics, and development. The course will mainly consist of lectures and seminars; relevant scientific papers will be read and commented on in class. Prerequisite: BIOL 3315.

### **BIOL5314 – BIOMETRY**

**3** Lecture Hours · **0** Lab Hours

An examination of statistical methods and procedures in relation to the design of biological experiments and the analysis of their results. Prerequisite: consent of the instructor.

### **BIOL5315 – COMMUNITY ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

An investigation of the effects of interspecific interactions on the distribution and abundance of organisms. Prerequisite: consent of the instructor.

### **BIOL5316 – ADVANCED EVOLUTIONARY BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

An analysis of existing biological phenomena with regard to their selective advantage in biological systems. Prerequisite: BIOL 5311 or consent of the instructor.

### **BIOL5317 – BACTERIAL PATHOGENESIS**

**3** Lecture Hours · **0** Lab Hours

Host-pathogen relationships in microbial diseases. Topics include bacterium-host interactions, pathogens and pathogenic factors; techniques in pathogenesis research: molecular mechanisms of pathogenesis by major bacterial pathogens; antimicrobial compounds and resistance to antibiotics; and discussion of human genomics and susceptibility to infections. Prerequisites: BIOL 3312 and BIOL 3444 must have a B or better in these courses.

### **BIOL5319 – HUMAN GENETICS**

**3** Lecture Hours · **0** Lab Hours

This course will enable students to comprehend the basic principles of genetics applied to human inheritance and disease, to interpret the research strategies aimed to identify and study the genes responsible for diverse functions and traits, as well as to assess the consequences of the genetic technologies in our society.

### **BIOL5320 – BIOGEOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

The role of natural and artificial transport, population pressure and limiting agencies are examined in the light of the patterns of distribution of living organisms. Prerequisite: consent of the instructor.

### **BIOL5325 – PLANT ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

An introduction to plant ecology including physiological, population, community and ecosystem ecology.

### **BIOL5326 – WETLANDS ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

An introduction to wetland ecology including the formation of wetlands, biogeochemistry of wetland soils, hydrology and biotic adaptations to wetland environments.

### **BIOL5327 – QUANTITATIVE ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

A presentation of quantitative methods used in the design of experiments, collection and analysis of data associated with research in population, community and landscape ecology.

### **BIOL5328 – LANDSCAPE ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

Landscape ecology focuses on the spatial organization of the landscape mosaic and the flows of energy, nutrients, and species among landscape elements and ecosystems.

### **BIOL5330 – DEVELOPMENTAL BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

The primary goal of this course is to describe how organismic complexity is generated during embryonic and post-embryonic development. The course will cover current areas of research in developmental biology, which include: the roles of genetic networks, induction events, cell lineage, maternal inheritance, cell-cell communication, and hormonal control in developmental processes in well-suited organisms such as vertebrates, insects, and nematodes.

### **BIOL5331 – ADVANCED MOLECULAR BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Molecular biology, protein-nucleic acid interactions, nucleic acid biochemistry, and the RNA World.

### **BIOL5333 – BIOLOGICAL MODELING**

**3** Lecture Hours · **0** Lab Hours

Computational and mathematical techniques for representing biological processes, including dynamical systems, simulation, and stochastic processes, using examples from ecology, evolution, and other areas of biology. Prerequisite: consent of the instructor.

### **BIOL5334 – MOBILE DNA MECHANISMS & REGULATION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate course that covers the classification of transposable elements, and the mechanisms and regulation of transposition in a broad range of organisms. In addition to traditional lectures given by the instructor, students will present and discuss papers among the classic and recent literature on the topic.

### **BIOL5335 – ESSENTIALS OF GENOMICS**

**3** Lecture Hours · **0** Lab Hours

An integrative approach to genome science, combining elements of genetics, statistics and bioinformatics. Current technologies used in genomics analysis will be presented.

### **BIOL5336 – MOLECULAR EVOLUTION**

**3** Lecture Hours · **0** Lab Hours

An exploration of how genes and genomes evolve at the molecular level. The presentation uses the theoretical framework provided by population genetics to analyze molecular biology data.

### **BIOL5337 – BEHAVIORAL ECOLOGY**

**3** Lecture Hours · **0** Lab Hours

Introduction to predictive modeling techniques used in studying behavior and ecology of animals. Includes optimization, dynamic optimization, utility theory, and game theory. Prerequisite: consent of the instructor.

### **BIOL5339 – MOBILE DNA & GENOME EVOLUTION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate discussion course that tackles the broad topic of the role of transposable elements in the evolution of genomes. Students will choose topics of interest to present and lead discussion. Organisms discussed will viruses, bacteria, archea and eukaryotes.

### **BIOL5340 – BIOINFORMATICS**

**3** Lecture Hours · **0** Lab Hours

This course is an applied introduction to bioinformatics and computational genomics. The course is geared toward the student with a biology background and limited programming experience. The course provides an entrance to commonly used programming/scripting languages and an introduction to numerous aspects of modern genomic data analyses (e.g. identification of coding and regulatory features in novel sequences, expression analysis, and comparative/phylogenetic analyses).

### **BIOL5341 – PRINCIPLES OF NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

Organization and function of the mammalian nervous system including: sensory functions, motor activity, regulation of autonomic function, memory and association. Prerequisites: three hours of advanced physiology courses or consent of the instructor.

### **BIOL5343 – REPTILE BIOLOGY**

**2** Lecture Hours · **3** Lab Hours

Diversity, systematics, distribution and behavior of major groups of reptiles. Laboratory includes museum techniques, identification and anatomical study. Prerequisite: consent of the instructor.

### **BIOL5344 – AMPHIBIAN BIOLOGY**

**2** Lecture Hours · **3** Lab Hours

Diversity, systematics and behavior of major groups of amphibians. Laboratory includes museum techniques, identification and anatomical study. Prerequisite: consent of the instructor.

### **BIOL5345 – ORNITHOLOGY**

**2** Lecture Hours · **3** Lab Hours

Anatomy, physiology, identification, population dynamics and ethology of birds. Laboratory includes field identification, preparation of specimens, and field study techniques. A weekend field trip is required. Prerequisite: consent of the instructor.

### **BIOL5346 – MICROBIAL PHYSIOLOGY**

**3** Lecture Hours · **0** Lab Hours

This course considers the anatomy and physiology of the bacterial cell in detail. Lecture topics consider the molecular architecture of cell walls, membranes and organelles, synthesis of wall material and membranes, insertion of proteins into membranes and regulation of biosynthetic systems at the whole cell level.

### **BIOL5350 – CONSERVATION BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Theory and practice of conservation biology, with emphasis on applications of modern quantitative and molecular genetic techniques to preservation of organisms and habitats. Includes: identification and prioritization of units for protection; conservation genetics; preserve design; public policy; and current case studies. Prerequisites: BIOL 3315 or equivalent or consent of the instructor.

### **BIOL5351 – ENVIRONMENTAL MICROBIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Principles, methodology, and practical applications of environmental microbiology. Topics include: habitat and community approaches to environmental microbiology; measures of microbial populations and activities; interactions among microbial communities; role of microorganisms in the origin of mineral resources and pollution and energy flow through microbial communities. Prerequisite: BIOL 3444 or equivalent or consent of the instructor.

### **BIOL5354 – LIMNOLOGY**

**3** Lecture Hours · **0** Lab Hours

The study of biotic and abiotic components of inland waters. Prerequisite: consent of the instructor.

### **BIOL5357 – MARINE BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Principles of oceanography and ocean circulation, adaptations of marine organisms to their environment, ecological principles of marine biology and human impacts on the sea.

### **BIOL5361 – ADVANCED BIOMETRY**

**3** Lecture Hours · **0** Lab Hours

Topics include introduction to matrix algebra, regression, correlation, residual analysis, and multivariate statistics. Several computerized statistical packages are introduced. Prerequisite: BIOL 5314 or consent of the instructor.

### **BIOL5362 – EXPERIMENTAL DESIGN**

**3** Lecture Hours · **0** Lab Hours

Various analysis of variance models will be explored including hierarchic models, multiway factorial models, Latin square designs, split plots designs, and incomplete block designs. Nonparametric methodologies and analysis of covariance techniques will also be presented. Prerequisite: BIOL 5314 or consent of the instructor.

### **BIOL5364 – POPULATION GENETICS**

**3** Lecture Hours · **0** Lab Hours

The genetics of evolution with emphasis on measuring, predicting, and modeling genetic change in populations. Prerequisite: consent of the instructor.

### **BIOL5367 – THEORETICAL SYSTEMATICS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the study of organismal diversity and evolutionary relationships. Emphasizes quantitative methods for phylogeny reconstruction, and interpretation and application of molecular data. Prerequisite: BIOL 3315 and BIOL 3339 or equivalents, or consent of the instructor.

### **BIOL5391 – INDIVIDUAL PROBLEMS IN BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Individual research projects supervised by a faculty member. Prerequisite: consent of the instructor.

### **BIOL5393 – RESEARCH IN BIOLOGY**

**3** Lecture Hours · **0** Lab Hours

Conference course in which the student undertakes intensive investigation of topics under the supervision of a staff member. Prerequisite: consent of the instructor. Graded P/F/R.

### **BIOL5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Prerequisite: consent of faculty.

### **BIOL5420 – GENETICS METHODS LAB**

**0** Lecture Hours · **4** Lab Hours

Computational and experimental approach to genomics research. The course theme will be transposable elements.

### **BIOL5421 – METHODS IN MOLECULAR MICROBIOLOGY**

**1** Lecture Hour · **3** Lab Hours

This course will provide an overview of different techniques used during manipulation of microorganisms. It will allow students to gain a historical perspective of techniques used in microbiology (Winogradsky column, Koch solid agar plating) as well as learn state of the art molecular characterization of microorganisms and their genetic manipulation. This course introduces current biochemical, physiological and molecular biology methods to assess community diversity and microbial activity in a variety of ecosystems. Other topics discussed include bacterial growth and survival, population biology, and microbial interactions.

### **BIOL5440 – LABORATORY METHODS IN BACTERIAL PATHOGENESIS**

**1** Lecture Hour · **3** Lab Hours

This course is intended to expose students to research techniques for studying bacterial pathogens. Students will use molecular and classical techniques to isolate, identify and characterize bacteria and their response to stimuli. Techniques will range from PCR, Gene Sequencing, SDS-PAGE and Immunofluorescence Microscopy. Prerequisites BIOL 3312, 3444, 4317.

### **BIOL5493 – RESEARCH**

**4** Lecture Hours · **0** Lab Hours

### **BIOL5593 – RESEARCH**

**5** Lecture Hours · **0** Lab Hours

### **BIOL5693 – RESEARCH IN BIOLOGY**

**6** Lecture Hours · **0** Lab Hours

Conference course in which the student undertakes intensive investigation of topics under the supervision of a staff member. Prerequisite: consent of the instructor. Graded P/F/R.

### **BIOL5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: consent of faculty.

### **BIOL5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours



Graded P/F/R. Prerequisite: consent of faculty.

### **BIOL6191 – ADVANCED RESEARCH**

1 Lecture Hour · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6291 – ADVANCED RESEARCH**

2 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6391 – ADVANCED RESEARCH**

3 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

6399 and 6699 graded R/F only; 6999 graded P/F/R. Prerequisite: admission to candidacy for the degree Doctor of Philosophy in Quantitative Biology.

### **BIOL6491 – ADVANCED RESEARCH**

4 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6591 – ADVANCED RESEARCH**

5 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6691 – ADVANCED RESEARCH**

6 Lecture Hours · 0 Lab Hours

Faculty supervised individual research. May be repeated for credit. Graded P/F/R.

### **BIOL6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

6399 and 6699 graded R/F only; 6999 graded P/F/R. Prerequisite: admission to candidacy for the degree Doctor of Philosophy in Quantitative Biology.

### **BIOL6999 – DISSERTATION**

9 Lecture Hours · 0 Lab Hours

6399 and 6699 graded R/F only; 6999 graded P/F/R. Prerequisite: admission to candidacy for the degree Doctor of Philosophy in Quantitative Biology.

### **BIOL7399 – DOCTORAL DEGREE COMPLETION**

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office



of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

Home

Degree Requirements

Fields of Study

School of Architecture

College of Business

College of Education and  
Health Professions

College of Engineering

College of Liberal Arts

College of Nursing

College of Science

Biology

Chemistry &  
Biochemistry

Earth and Environmental  
Sciences

Interdisciplinary Science

Mathematics

Physics

Psychology

School of Social Work

School of Urban and Public  
Affairs

Admissions Requirements &  
Procedures

General Information &  
Regulations

Graduate Calendar

Graduate Faculty

Table of Contents

Index

## Chemistry & Biochemistry

College of Science

### Chair Rasika Dias

Web [www.uta.edu/chemistry/](http://www.uta.edu/chemistry/)

Email [chemgrad@uta.edu](mailto:chemgrad@uta.edu)

Phone 817.272.3171

Fax 817.272.3808

[219 Science Hall](#)

### Degrees / Certificates

#### Master's Degrees

Chemistry, M.S.

Chemistry, M.S. Thesis Substitute

#### Doctoral Degrees

Chemistry, B.S. to Ph.D.

Chemistry, Ph.D.

### Graduate Faculty

[Morteza Khaledi](#)

[Robin Macaluso](#)

#### Professor

[Daniel Armstrong](#)

[Purnendu Dasgupta](#)

[Rasika Dias](#)

[Ronald Eisenbaumer](#)

[Carl Lovely](#)

[Frederick Macdonnell](#)

[Krishnan Rajeshwar](#)

[Richard Timmons](#)

#### Associate Professor

[Jongyun Heo](#)

[Peter Kroll](#)

[Subhrangsu Mandal](#)

[Kevin Schug](#)

#### Assistant Professor

[Alejandro Bugarin](#)

[Saiful Chowdhury](#)

[Frank Foss](#)

[Junha Jeon](#)

[Kayunta Johnson-Winters](#)

[Roshan Perera](#)

[Bradley Pierce](#)

**Professor Emeritus**  
**Martin Pomerantz**  
**Zoltan Schelly**

---

## Graduate Advisors

**Peter Kroll**  
*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, Ph.D.*

**Robin Macaluso**  
*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, M.S. Thesis Substitute*  
*Chemistry, Non-Degree Seeking*  
*Chemistry, Ph.D.*

---

## Department Information

### Courses

# Department Information

### Available Degree Programs

#### Admission Criteria

- **Unconditional Admission**
- **Provisional Admission**
- **Probationary Admission**
- **Denial of Admission**
- **Eligibility for Scholarships/Fellowships**

#### Objective: Master of Science

#### Master's Degree Requirements

- **Master's Degree with Thesis**
- **Master's Degree with Thesis Substitute**
- **Master's Degree Non-Thesis**

#### Objective: Ph.D. in Chemistry

#### Objective: Ph.D. in Mathematical Sciences/Chemistry Option

#### Ph.D. Degree Requirements

### Available Degree Programs

- Master's Degree with Thesis
- Master's Degree with Thesis Substitute
- Master's Degree Non-Thesis
- Ph.D. in Chemistry

- Ph.D. in Mathematical Sciences/Chemistry Option

## Admission Criteria

In evaluating candidates for admission to its graduate degree programs, the Department of Chemistry and Biochemistry emphasizes the preparedness of the student as evidenced by quality and quantity of coursework and the student's previous research experience. Recommendations from our own faculty, based on firsthand knowledge of the applicant or a faculty member at the applicant's institution, are also very important.

### Unconditional Admission

Unconditional admission may be granted under any one of the following options. The minimum undergraduate GPA requirement for all options is 3.0, as calculated by the Graduate School.

#### Option 1

A satisfactory completion of a Bachelor's degree or equivalent, official transcripts, and GRE scores, and three letters of recommendation.

#### Option 2

A satisfactory completion of a Bachelor's degree or equivalent, official transcripts, and a letter of recommendation from a faculty member at the applicant's undergraduate institution, *plus a recommendation from a UT Arlington Chemistry and Biochemistry faculty member.*

#### Option 3

A satisfactory completion of a bachelor's degree or equivalent, official transcripts, and a letter of recommendation from a faculty member at the undergraduate institution, *plus a recommendation from a UT Arlington Chemistry and Biochemistry faculty member based on a face-to-face interview.*

### Language Requirements

An applicant whose native language is not English must submit a TOEFL score of at least 550 or a score of at least 213 on the computer-based test. A TSE-A score of 45 or higher can be substituted for the TOEFL. Those who have completed their undergraduate education in English may be *eligible for a TOEFL waiver* based on the recommendation letters.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### Probationary Admission

In rare cases, probationary admission may be granted as the result of a substandard performance on one or more of the admission criteria. In this case, the Graduate Advisor will set additional conditions for admission including, but not limited to, additional undergraduate coursework and/or achieving a B or better in the first 9 hours of graduate coursework.

### Denial of Admission

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

## Eligibility for Scholarships/Fellowships

Students that have no provisional admission conditions to meet will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships. (Students with graduate teaching or research assistantships, however, must be enrolled in a minimum of 9 hours of coursework in both long semesters and 6 hours of coursework in the summer sessions.)

## Objective: Master of Science

The objectives of the Chemistry and Biochemistry Department's program leading to the Master of Science degree include (a) developing the individual's ability to do independent research, (b) preparing students for more advanced study in chemistry and (c) providing advanced training to professional chemists and those employed in technical and business areas in which chemistry at this level is necessary for efficient performance. Research areas include analytical chemistry, biochemistry, bioinorganic chemistry, colloid and surface chemistry, electrochemistry, inorganic chemistry, medicinal chemistry, organic chemistry, physical chemistry, polymer chemistry, and theoretical chemistry.

## Master's Degree Requirements

A candidate for graduate study must satisfy the general admission requirements of the program.

### Master's Degree with Thesis

This degree requires a minimum of 24 credit hours in course work plus a 6 credit hour thesis class. A minimum of 18 credit hours course work in chemistry, and up to 6 credit hours electives are required. The 6 credit hour thesis class (CHEM 5698) must be taken in the final semester. Courses in chemistry will be taken from at least four (4) of the chemistry disciplines (Analytical, Biochemistry, Inorganic, Organic, Physical); suggested classes are CHEM 5301 or 5302; 5309; 5304 or 5305 or 5307 or 5311; 5315; 5318 or 5321. Electives may be senior or graduate division courses in a science or engineering subject selected by the candidate with the approval of the graduate advisor.

### Master's Degree with Thesis Substitute

This degree requires a minimum of 33 credit hours, of which at least 27 must be in coursework and 3 in a suitable project. Courses in chemistry will be taken from at least four (4) of the chemistry disciplines (Analytical, Biochemistry, Inorganic, Organic, Physical); suggested classes are CHEM 5301 or 5302; 5309; 5304 or 5305 or 5307 or 5311; 5315; 5318 or 5321. Electives may be senior or graduate division courses in a science or engineering subject selected by the candidate with the approval of the graduate advisor. Minimal registration of a project course (CHEM 5391 or 5691 or CHEM 5392 or 5692) is also required.

Admission to the program requires approval of the Graduate Studies Committee. At the time the degree is awarded the candidate is expected to have completed at least five years of suitable professional experience in an industrial, government, or other chemistry laboratory. All potential applicants must contact the Graduate Advisor prior to registration.

### Master's Degree Non-Thesis

This option requires a minimum of 36 hours of coursework of which at least 24 hours must be in chemistry. Courses in chemistry will be taken from at least four (4) of the chemistry disciplines

(Analytical, Biochemistry, Inorganic, Organic, Physical); suggested classes are CHEM 5301 or 5302; 5309; 5304 or 5305 or 5307 or 5311; 5315; 5318 or 5321. Electives may be senior or graduate division courses in a science or engineering subject. All courses must be approved by the graduate advisor.

### Objective: Ph.D. in Chemistry

The program leading to the Doctor of Philosophy degree in Chemistry is designed primarily to prepare doctoral-level chemists for industrial research careers. The student must (1) demonstrate the ability to carry out independent research; and (2) acquire the practical knowledge of the type of research conducted in industry and of the constraints (both practical and philosophical) under which such research is conducted. The areas of research include analytical chemistry, biochemistry, bioinorganic chemistry, colloid and surface chemistry, electrochemistry, inorganic chemistry, medicinal chemistry, organic chemistry, organometallic chemistry, physical chemistry, polymer chemistry, and theoretical chemistry.

### Objective: Ph.D. in Mathematical Sciences/Chemistry Option

The program leading to the Doctor of Philosophy degree in mathematical sciences/chemistry option is designed primarily to prepare chemists for research and teaching careers which involve the theoretical and mathematical aspects of chemistry. For further details, see Interdepartmental and Intercampus Programs.

### Ph.D. Degree Requirements

To be admitted to the Ph.D. program, an applicant must satisfy the general admission requirements of the program and his or her academic record must show preparation for advanced work in chemistry.

Each candidate must complete the following program requirements:

1. Courses for students emphasizing analytical chemistry (**complete any 3 of the following 4 courses**):

CHEM 5304 Analytical Mass Spectrometry and Spectroscopy  
CHEM 5305 Separation Science  
CHEM 5307 Analytical Electrochemistry  
CHEM 5311 Analytical Chemistry - Concepts and Implementation

(CHEM 5304 and 5311 are considered as Analytical Chemistry Core Courses)

*Plus any two (2) courses* from two divisions outside of analytical chemistry (biochemistry, inorganic, organic, or physical). Chem 5308 cannot be used to fulfill this requirement. Students who do not have a good instrumentation background should consider taking CHEM 5461 Instrumental Analysis.

*Plus: One of the courses listed in item 7.*

2. Courses for students emphasizing biochemistry:

CHEM 5321 Metabolism and Regulation  
CHEM 5325 Enzymology  
CHEM 5327 Biochemical Genetics

(CHEM 5321, 5325, 5327 are considered as Biochemistry Core Courses)

Students emphasizing biochemistry who have not had one full year of General Biochemistry must also take the following courses BEFORE taking CHEM 5321, 5325, and 5327:

CHEM 5318 Principles of Biochemistry  
or  
CHEM 5319 General Biochemistry I  
CHEM 5320 General Biochemistry II

*Plus two from:*

CHEM 5203/5180 Quantum Chemistry  
CHEM 5309 Organic Chemistry I  
CHEM 5315 Inorganic Chemistry  
CHEM 5308 Determination of Mol. Structure by Phys. Methods  
CHEM 5304 or 5311 (one of the Analytical Core Courses)

*Plus: One of the courses listed in item 7.*

3. Courses for students emphasizing inorganic chemistry:

CHEM 5315 Inorganic Chemistry  
CHEM 5308 Determination of Mol. Structure by Phys. Methods

(CHEM 5315 and 5308 are considered as Inorganic Chemistry Core Courses)

*Plus two from:*

CHEM 5203/5180 Quantum Chemistry  
CHEM 5309 Organic Chemistry I  
CHEM 5304 or 5311 (one of the Analytical Core Courses)  
CHEM 5318 Principles of Biochemistry

*Plus: One of the courses listed in item 7.*

4. Courses for students emphasizing organic chemistry:

CHEM 5308 Determination of Mol. Structure by Phys Methods  
CHEM 5309 Organic Chemistry I  
CHEM 5310 Organic Chemistry II  
CHEM 5312 Advanced Organic Synthesis

(CHEM 5308, 5309, 5310, and 5312 are considered as Organic Chemistry Core Courses)

*Plus two from:*

CHEM 5203/5180 Quantum Chemistry  
CHEM 5304 or 5311 (one of the Analytical Core Courses)  
CHEM 5315 Inorganic Chemistry  
CHEM 5318 Principles of Biochemistry

*Plus: one of the courses listed in item 7.*

5. Courses for students emphasizing physical chemistry:

CHEM 5301 Physical Chemistry I  
CHEM 5302 Physical Chemistry II  
CHEM 5300 Selected Topics in Advanced Chemistry

(CHEM 5301 and 5302 are considered as Physical Chemistry Core Courses)

*Plus two from:*

CHEM 5309 Organic Chemistry I  
CHEM 5304 or 5311 (one of the Analytical Core Courses)  
CHEM 5315 Inorganic Chemistry  
CHEM 5318 Principles of Biochemistry

*Plus: One of the courses listed in item 7.*

6. Courses for students emphasizing polymer chemistry:

All required courses for any of the other emphasis areas 1-5

*Plus:*

CHEM 5350 Advanced Polymer Chemistry

7. CHEM 6104, 6304 or 6904. Chemistry Internship. Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience.

8. Additional research and elective courses chosen according to the student's dissertation topic and area of specialization under the guidance of the supervising committee.

A course grade may be used to satisfy degree requirements for no more than seven years after the course has been completed.

After admission to the doctoral program the student must successfully complete the appropriate examination(s) required by the faculty of the student's discipline.

A supplementary set of guidelines, published by the Department of Chemistry and Biochemistry, should be consulted.

## CHEM Courses

### CHEM5101 – SEMINAR IN CHEMISTRY

1 Lecture Hour · 0 Lab Hours

Two semesters of registration are required for all graduate students pursuing a thesis degree (PhD or MSTH). Students will present a talk, prepare a poster, and engage in scientific writing and communication. Includes learning how to prepare, present, and defend an oral presentation. May not be counted for credit toward the degree requirements.

### CHEM5180 – QUANTUM CHEMISTRY LABORATORY

0 Lecture Hours · 4 Lab Hours

Molecular modeling. Application of various computational techniques to chemical problems, including determination of molecular geometry, conformational analysis, and molecular energetics. Prerequisite: concurrent enrollment in CHEM 5203.

### CHEM5191 – READINGS IN CHEMISTRY

1 Lecture Hour · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.



### **CHEM5192 – RESEARCH IN CHEMISTRY**

1 Lecture Hour · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5203 – COMPUTATIONAL CHEMISTRY**

2 Lecture Hours · 0 Lab Hours

Molecular quantum mechanics. Fundamental principles of quantum mechanics, with a special emphasis on molecular electronic structure theory. Topics covered include molecular mechanics, semi-empirical and ab initio molecular orbital theory, density functional theory, calculation of thermodynamic properties and molecular dynamics. Prerequisite: CHEM 3322 or equivalent.

### **CHEM5291 – READINGS IN CHEMISTRY**

2 Lecture Hours · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5292 – RESEARCH IN CHEMISTRY**

2 Lecture Hours · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5300 – SELECTED TOPICS IN ADVANCED CHEMISTRY**

3 Lecture Hours · 0 Lab Hours

The area may vary (typically analytical, applied, biological, colloid, environmental, inorganic, organic, physical, polymer, materials, theoretical, etc.) and will be announced in advance. More than one area may be covered simultaneously, in parallel courses offered under different section numbers. May be repeated for credit when area or topics vary. Prerequisite: permission of instructor.

### **CHEM5301 – INTRODUCTION TO GRADUATE PHYSICAL CHEMISTRY**

3 Lecture Hours · 0 Lab Hours

Classical thermodynamics and statistical thermodynamics. Equilibrium and kinetic processes. Reaction dynamics. Principles of quantum chemistry and its application to spectroscopy. Introduction to bonding in molecules and solids.

### **CHEM5302 – ADVANCED GRADUATE PHYSICAL CHEMISTRY**

3 Lecture Hours · 0 Lab Hours

Statistical thermodynamics and its application to kinetics and spectroscopy. Quantum theory, ab initio methods and density functional theory. Advanced spectroscopic methods to investigate bonding in molecules and solids. Prerequisite: CHEM 5301 or permission of the instructor.

### **CHEM5304 – ANALYTICAL MASS SPECTROMETRY AND SPECTROSCOPY**

3 Lecture Hours · 0 Lab Hours

This course covers modern aspects of atomic and molecular mass spectrometry, as well as spectrochemical analysis. Upon completion of this course, the student will be able to: describe the basic setup and operation of mass spectrometric and spectroscopic instrumentation; interpret spectra from various instruments as a means for qualitative and quantitative analysis; apply basic knowledge of mass spectrometry and spectroscopy for practical problem solving; relate the use of mass spectrometry and spectroscopy to his or her own research interests; and compile, present, and explain modern techniques for analytical research. Written and oral presentations, as well as traditional classroom examinations, homework, and quizzes will be used to assess student performance. Prerequisite includes CHEM 4461 or equivalent; or permission of instructor.

## **CHEM5305 – SEPARATION SCIENCE**

**3** Lecture Hours · **0** Lab Hours

A comprehensive examination of most areas involving the separation of molecules and ions. Theoretical, practical and historical aspects of: distillation, sublimation, liquid-liquid extraction, solid phase extraction, chromatography, electrophoresis, field flow fractionation, membrane/barrier processes, and crystallization will be considered. Students taking this course must have a good basic background in organic chemistry and physical chemistry.

## **CHEM5306 – ANALYTICAL SPECTROSCOPY**

**3** Lecture Hours · **0** Lab Hours

This course covers many of the methods of spectrochemical analysis used in the analytical laboratory. At the end of this course, students should be able to: explain the fundamental theory of many spectroscopy methods, including atomic spectroscopy, molecular spectroscopy, UV/Vis spectroscopy, molecular luminescence, and infrared spectrometry, among others; describe basic instrumental components; apply basic statistics (e.g., measurement errors, and calibration methods) for data analysis; and understand the fundamental use and applications of spectroscopy methods for basic research and laboratory measurements. Student performance will be evaluated based on homework assignments, exams, quizzes, and presentations. Prerequisite includes CHEM 4461 or equivalent, or permission of instructor.

## **CHEM5307 – ANALYTICAL ELECTROCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

This course covers modern aspects of electroanalytical chemistry. Upon completion of this course, the student will be able to: understand the concepts of redox potentials and their role in electron transfer, the thermodynamic aspects of electrochemical cells, mass transport in electrochemical systems, and the principles underlying various electroanalytical techniques such as potentiometry, amperometry, coulometry and voltammetry. The instrumental aspects of these techniques will also be addressed, including specialized approaches such as spectroelectrochemistry. The student will be able to relate the use of these analytical techniques to his or her own research needs and interests. Written and oral examinations, as well as traditional classroom examinations, will be used to assess student performance. Prerequisite includes CHEM 4461 or equivalent; or permission of instructor.

## **CHEM5308 – DETERMINATION OF MOLECULAR STRUCTURE BY PHYSICAL METHODS**

**3** Lecture Hours · **0** Lab Hours

The use of modern instrumental techniques to determine structure: infrared, ultraviolet, and magnetic resonance spectroscopy, mass spectrometry, optical rotatory dispersion. Emphasis on interpretation of spectra. Prerequisite: CHEM 2322 or equivalent.

## **CHEM5309 – ORGANIC CHEMISTRY I**

**3** Lecture Hours · **0** Lab Hours

Bonding, structure, stereochemistry, substituent effects, isotope effects, solvent effects, kinetics, and linear free-energy relationships in determining reaction mechanisms. Acids and bases, orbital symmetry, pericyclic reactions, photochemistry, and nucleophilic substitution reactions. Prerequisites: CHEM 2322 and 3322 or equivalent.

## **CHEM5310 – ORGANIC CHEMISTRY II**

**3** Lecture Hours · **0** Lab Hours

A survey of organic reaction mechanisms including addition and elimination reactions, nucleophilic carbon species, carbonyl reactions, electrophilic substitution reactions, rearrangement reactions, electron deficient species, and free radical reactions. Prerequisite: CHEM 5309 or permission.

## **CHEM5311 – ANALYTICAL CHEMISTRY - CONCEPTS AND IMPLEMENTATION**

**3** Lecture Hours · **0** Lab Hours

This course familiarizes students with basic electronic design in analytical instrumentation. Familiarization with active and passive components, operational amplifiers, timers, logic gates, and designing analytical

instrumentation based on such components, especially in Wet Chemistry. The course covers ionic equilibria and acid-base equilibria and solving complex problems by iterative numerical methods and nonlinear curve fitting using programming in BASIC and MS Excel Solver™. The course covers present day applications of wet chemical analysis, specific methods and instrumentation, practical aspects of automated liquid phase analytical methods including component availability and cost. A design problem, chosen by lottery, will be given to each student early in the semester. The newly acquired knowledge of chemistry and electronics will be used to design a new instrument and present it. Prerequisite: CHEM 4461 or equivalent undergraduate instrumental analysis course.

### **CHEM5312 – ADVANCED ORGANIC SYNTHESIS**

**3** Lecture Hours · **0** Lab Hours

Synthetically important reactions, strategy in organic synthesis using retrosynthetic analysis and mechanistic understanding of reactions, synthons, asymmetric synthesis. Prerequisite: CHEM 5310 or permission of instructor.

### **CHEM5315 – INORGANIC CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Structures, bonding, and properties of main group and transition element compounds including: symmetry, coordination chemistry, reaction mechanisms, organometallic chemistry, and modern characterization techniques. Prerequisite: CHEM 4318 or permission of instructor.

### **CHEM5318 – PRINCIPLES OF BIOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Protein and nucleic acids structure, enzyme kinetics, and metabolism related to the human body. The course is intended for students who require biochemistry to support research efforts, or need to satisfy a deficiency before proceeding in the biochemistry graduate program. If CHEM 5318 is used for credit toward a degree, then any of CHEM 5319, 5320, or CHEM 4311, 4312 cannot also be used for credit. Prerequisite: CHEM 2322 or equivalent. A knowledge of physical chemistry is helpful.

### **CHEM5319 – GENERAL BIOCHEMISTRY I**

**3** Lecture Hours · **0** Lab Hours

Amino acids, carbohydrates, nucleic acids, enzymes. Obtaining of energy and cellular material from glucose including glycolysis, the TCA cycle, electron transport and oxidative phosphorylation and the pentose phosphate pathway. Either CHEM 5318 or 5319, but not both, may be counted for credit toward degree requirements. Prerequisite: CHEM 2322 or equivalent. A knowledge of physical chemistry is helpful.

### **CHEM5320 – GENERAL BIOCHEMISTRY II**

**3** Lecture Hours · **0** Lab Hours

Modes of breakdown and synthesis of fats, oxidative degradation of amino acids and proteins and biosynthesis of carbohydrate, nucleic acids, and protein. Chemical significance of the genetic code. Either CHEM 5318 or 5320, but not both, may be counted for credit toward degree requirements. Prerequisite: one semester of approved biochemistry (CHEM 5319 or equivalent).

### **CHEM5321 – METABOLISM AND REGULATION**

**3** Lecture Hours · **0** Lab Hours

Biosynthesis of amino acids, purines, pyrimidines, and complex lipids, including terpenes and steroids, with emphasis on regulation of these pathways. Aspects of more complex metabolic regulation by hormones, second messengers and receptor-mediated endocytosis with emphasis on chemical and structural modifications of proteins involved. Prerequisite: CHEM 5320.

### **CHEM5325 – ENZYMOLOGY**

**3** Lecture Hours · **0** Lab Hours

A study of enzymes including structures, reaction mechanisms, regulation, and kinetics. Prerequisite: CHEM 5320.

### **CHEM5327 – BIOCHEMICAL GENETICS**

**3** Lecture Hours · **0** Lab Hours

Aspects of the biochemistry of gene expression in prokaryotic and eukaryotic organisms, its regulation and control, together with genetic manipulations, and the methodology of recombinant DNA technology. Prerequisite: CHEM 5320.

### **CHEM5328 – ADVANCED BIOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

The course will cover various aspects of advanced studies in Biochemistry, Metabolism, and Cell Signaling. Selected topics may include gene expression regulation in prokaryotes and eukaryotes, epigenetics, cancer biology, lipid metabolism, cofactors, enzyme kinetics, cell signaling, redox signaling, nitric oxide signaling, metallo-enzyme mechanism and function, unnatural amino acids, protein engineering, and proteomics. Prerequisite: CHEM 5318 (Principles of Biochemistry or equivalent) or Biochemistry I and II (CHEM5319 and 5320)

### **CHEM5333 – THERMODYNAMICS OF MATERIALS**

**3** Lecture Hours · **0** Lab Hours

Applications of thermodynamics to the study of materials, thermodynamic properties of liquid and solid solutions and their relationship to surface and crystalline defects. Also offered as MSE 5320. Prerequisite: permission of instructor.

### **CHEM5350 – ADVANCED POLYMER CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Polymer synthesis and reactions including condensation, free-radical, ionic, and coordination polymerizations; principles of polymerization including thermodynamics and kinetic considerations; physical characterizations including determinations of absolute molecular weights, relative molecular weights, morphology, glass transitions, and polymer crystallinity; relationships between macromolecular structure, properties, and uses of polymeric materials. Also offered as MSE 5346. Prerequisite: CHEM 2321 and 2322 or permission of instructor.

### **CHEM5360 – X-RAY DIFFRACTION, SCATTERING AND ABSORPTION**

**3** Lecture Hours · **0** Lab Hours

The class will focus on modern applications of X-ray diffraction and absorption techniques in crystal and molecular structure determination. A practical component will address aspects of state of the art methods, including how to solve structures using data collected on powder and single-crystal diffractometers, X-ray photoelectron spectroscopy (XPS), etc.

### **CHEM5391 – READINGS IN CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5392 – RESEARCH IN CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded R/F only. Prerequisite: permission of instructor.

### **CHEM5461 – ANALYTICAL INSTRUMENTATION**

**2** Lecture Hours · **8** Lab Hours

Theory of instrumentation and chemical signal source. Practical experiments utilizing atomic and molecular absorption and emission spectroscopy, chromatographic analysis, and electrochemical techniques.  
Prerequisite: CHEM 3322 or equivalent.

### **CHEM5491 – READINGS IN CHEMISTRY**

4 Lecture Hours · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5492 – RESEARCH IN CHEMISTRY**

4 Lecture Hours · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5591 – READINGS IN CHEMISTRY**

5 Lecture Hours · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5592 – RESEARCH IN CHEMISTRY**

5 Lecture Hours · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5691 – READINGS IN CHEMISTRY**

6 Lecture Hours · 0 Lab Hours

Conference course which may be repeated for credit, with credit granted according to work performed. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5692 – RESEARCH IN CHEMISTRY**

6 Lecture Hours · 0 Lab Hours

Conference course with laboratory with credit granted according to work performed. May be repeated for credit. Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5698 – THESIS**

6 Lecture Hours · 0 Lab Hours

Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM5998 – THESIS**

9 Lecture Hours · 0 Lab Hours

Graded P/F/R only. Prerequisite: permission of instructor.

### **CHEM6100 – TOPICS IN GRADUATE RESEARCH**

1 Lecture Hour · 0 Lab Hours

Lectures by departmental and university faculty on current chemical research at U.T. Arlington. All graduate students are required to take this course once. May not be counted toward degree requirements. Graded P/F only.

### **CHEM6102 – ISSUES IN MODERN CHEMICAL RESEARCH**

1 Lecture Hour · 0 Lab Hours

Topics to be discussed include the use of the library, maintenance of a research notebook, ethics in research, aspects of technical writing and presentations, and how research is funded. May not be counted toward degree requirements. Graded P/F only.

### **CHEM6104 – CHEMISTRY INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience. Graded P/F/R only. Prerequisite: permission of Graduate Advisor.

### **CHEM6202 – PRINCIPLES OF INDUSTRIAL CHEMISTRY**

2 Lecture Hours · 0 Lab Hours

Survey of industrial inorganic and organic chemical processes. Prerequisite: permission of instructor.

### **CHEM6203 – REGULATORY ASPECTS OF THE CHEMICAL INDUSTRY**

2 Lecture Hours · 0 Lab Hours

Survey of chemical toxicology, regulatory aspects involved in the chemical industry, industrial safety, patents and patent law.

### **CHEM6304 – CHEMISTRY INTERNSHIP**

3 Lecture Hours · 0 Lab Hours

Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience. Graded P/F/R only. Prerequisite: permission of Graduate Advisor.

### **CHEM6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

Graded R/F only. Prerequisite: admission to candidacy for the degree of Ph.D. in Applied Chemistry.

### **CHEM6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

Graded R/F/P/W. Prerequisite: admission to candidacy for the degree of Ph.D. in Applied Chemistry.

### **CHEM6904 – CHEMISTRY INTERNSHIP**

9 Lecture Hours · 0 Lab Hours

Each student is required to spend three months in a nonacademic chemical laboratory; credit may be given for a student's previous industrial research experience. Graded P/F/R only. Prerequisite: permission of Graduate Advisor.

### **CHEM6999 – DISSERTATION**

9 Lecture Hours · 0 Lab Hours

Graded P/F/R only. Prerequisite: admission to candidacy for the degree of Ph.D. in Applied Chemistry.

### **CHEM7399 – DOCTORAL DEGREE COMPLETION**

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial

aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
    - Biology
    - Chemistry & Biochemistry
    - Earth and Environmental Sciences
    - Interdisciplinary Science
    - Mathematics
    - Physics
    - Psychology
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Earth and Environmental Sciences

College of Science

### Chair **Asish Basu**

Web [www.uta.edu/ees/](http://www.uta.edu/ees/)  
Phone 817.272.2405  
Fax 817.272.3822

---

### Degrees / Certificates

#### Master's Degrees

Earth and Environmental Science / Geology, M.S.

#### Doctoral Degrees

Earth and Environmental Science, B.S. to Ph.D.

Earth and Environmental Science, Ph.D.

#### Certificates

Environmental Science Certificate

G.I.S. and Spatial Information Systems Certificate

Hazardous Materials and Waste Management Certificate

Petroleum Geoscience Certificate

---

### Graduate Faculty

#### Professor

[Asish Basu](#)

[Glen Mattioli](#)

[Merlynd Nestell](#)

[John Wickham](#)

#### Associate Professor

[Qinhong Hu](#)

[Andrew Hunt](#)

#### Assistant Professor

[Majie Fan](#)

[Elizabeth Griffith](#)

[William Griffith](#)

[Arne Winguth](#)

#### Adjunct Professor

[Galina Nestell](#)

#### Associate Adjunct Professor

[Larry Standlee](#)

#### Assistant Adjunct Professor

[Harold Rowe](#)



---

## Graduate Advisors

### Andrew Hunt

*Earth and Environmental Science / Geology, M.S.  
Earth and Environmental Science, Ph.D.*

### John Wickham

*Earth and Environmental Science / Geology, M.S.*

---

## Department Information

### Courses

# Department Information

### Program Objectives

#### Admission

- [Environmental and Earth Sciences Master's Program Admissions](#)
- [Environmental and Earth Sciences Doctoral Program Admissions](#)

#### Degree Requirements

- [Environmental and Earth Sciences Master's Degree](#)
- [Dual Degree Program](#)
- [Environmental and Earth Sciences Doctoral Degree](#)

## Program Objectives

**The MS in Environmental and Earth Sciences** has four options: an Environmental Science Option; a Geoscience Option; a Professional Environmental Science Option; and a Petroleum Geoscience Option.

*The Environmental Science Option* provides graduate students with an integrated, multidisciplinary education, requiring a breadth of understanding and mastery of a spectrum of scientific and engineering principles. The thesis option, designed for those interested in an in-depth experience in some particular topic, and a non-thesis option are available.

*The Geoscience Option* is a two year program with specializations in stratigraphy, petrology, paleontology, sedimentology, structural geology, tectonics, plate tectonics, computer modeling, geochemistry or paleoclimatology. Students in this program are prepared for additional graduate work at the PhD level, or for positions in industry and government. Thesis or non thesis options are available.

*The Environmental Science Professional Option* is a Professional Master's Degree for those interested in a career in Environmental Science. Instead of a thesis, students are participate in a mentoring program, take a course in project economics, work as an intern or in a part time job in the Environmental Science Profession, and participate in course experiences involving business ethics, teamwork, a small research project, and communication. This is a non thesis program.

*The Petroleum Geoscience Professional Option* is a Professional Masters Degree for those interested in a career in Petroleum Geoscience. In addition to core geology courses, students

are required to participate in a mentoring program with industry professionals, work as an intern or in a part time job in petroleum geoscience, take a course in project economics, and participate in course activities that emphasize business ethics, teamwork and communications. A thesis research project is required.

**The PhD in Environmental and Earth Sciences.** The program leading to the Doctor of Philosophy degree in Environmental and Earth Sciences is designed primarily to prepare doctoral-level students for research careers in industry, government or academic institutions. Students carry out independent research and acquire practical knowledge of the type of research conducted and the constraints (both practical and philosophical) under which such research is conducted. The areas of research are interdisciplinary using the Earth's environment, interpreted broadly, as the theme. Research normally comes from the disciplines of Geoscience, Biology, Chemistry and Engineering, but contributions from other disciplines are welcome. The program is designed to provide graduate students an integrated, multidisciplinary education, requiring a breadth of understanding and mastery of a spectrum of scientific and engineering principles. Among the goals is to provide students who have earned engineering or science undergraduate degrees a common ground for interdisciplinary communication, an understanding of the environment, and competence in a research area that will enable them to evaluate complex environmental problems.

## Admission

Students applying for MS or PhD degrees should apply to the Graduate School for regular admission to a particular degree program.

### Categories of admission:

Unconditional - all the admission criteria are met and there are no conditions placed on continued enrollment in the program.

Probationary - Applicants that do not meet the standards for unconditional admission may be considered for probationary admission after careful examination of their application materials. Probationary admission normally requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

Deferred and Provisional Admission - A deferred admission may be granted when an application is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

**International students:** An applicant whose native language is not English must demonstrate a sufficient level of skill with the English language to assure success in graduate studies. Applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.

An applicant holding either a bachelor's or a master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, TSE or IELTS score for admission purposes. Any other waivers of the score requirements must be recommended by the applicant's Graduate Advisor and approved by the Dean of Graduate Studies.

**Financial Aid.** Students that are unconditionally admitted into the PhD program can also apply for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 9 hours of coursework in both long semesters to retain their fellowships. In addition, an applicant who is a non-native speaker of English must submit a TOEFL iBT score of at least 23, or a score of at least 7 on the Speaking section of the IELTS, or take and pass the UTA Developmental English course

to be eligible for a Graduate Teaching Assistantship.

**Denial of Admission** - A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

### Environmental and Earth Sciences Master's Program Admissions

For unconditional admission a student must meet the following requirements:

For the Environmental Science Options: A B.S. degree in biology, chemistry, geoscience, mathematics, or engineering with the following courses or their equivalent: 1 semester of introductory physics for science majors; 2 semesters of introductory chemistry for science majors; and 2 semesters of calculus. Students with a Bachelor's Degree in other sciences will also be considered, subject to satisfactory completion of deficiency courses.

For the Geoscience Options: A B.S. degree in an Earth Science discipline with the following courses or their equivalent: Mineralogy, Petrology, Structure, Stratigraphy, Field Geology and Geophysics or Paleontology. In addition, students need a year of Chemistry, Biology, Physics and Calculus.

For all Options:

1. A minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School.
2. Graduate Record Examination (GRE) scores are considered in admission decisions. Masters students who have succeeded in the Environmental and Earth Sciences Program typically score higher than the 60th Percentile on the verbal and quantitative portion of the GRE.
3. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or an equivalent score on a computer-based test) or a score of 40 on the Test of Spoken English.
4. Favorable letters of recommendation from people familiar with the applicant's academic work.
5. Students may be considered for unconditional admission if further review of their transcripts, recommendation letters, correspondence or direct interactions with Environmental and Earth Sciences faculty, and statement of professional or research interests indicates that they are qualified to enter the Masters Program.

### Environmental and Earth Sciences Doctoral Program Admissions

For unconditional admission a student must meet the following requirements:

1. A Masters Degree or at least 30 hours of graduate coursework in environmental science, biology, chemistry, geology, mathematics or engineering. Students with a Bachelor's degree in biology, chemistry, geology, mathematics, or engineering will be considered for the B.S. to Ph.D. track if they meet the other requirements for admission to doctoral studies. Students with a Bachelor's Degree in other sciences will also be considered, subject to satisfactory completion of courses to make up deficiencies.
2. A minimum graduate coursework GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School.
3. Graduate Record Examination (GRE) scores are considered in admission decisions. Doctoral students who have succeeded in the Environmental and Earth Sciences Program typically score higher than the 60th percentile the verbal and the quantitative portion of the GRE.
4. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or an equivalent score on a computer-based test) or a score of 40 on the Test of Spoken English.
5. Favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

6. A statement must be submitted to the program detailing the applicant's specific research interests and identifying the faculty member who is requested as supervisor of the dissertation research.
7. Students may be considered for unconditional admission if further review of their transcripts, recommendation letters, correspondence or direct interactions with Environmental and Earth Sciences faculty, and statement of research interests indicates that they are qualified to enter the Doctoral Program.

## Degree Requirements

### Environmental and Earth Sciences Master's Degree

There are additional requirements for all Master's programs listed in this catalogue under the Graduate School

#### Environmental Science Option:

Core Courses (15 hours)

- Engineering (6 hours)
  - **CE 5321** Engineering for Environmental Scientists
  - **CE 5319** Physical-Chemical Processes II or **CE 5328** Fundamentals of Air Pollution
- Two of the following courses in science (6 hours):
  - **EVSE 5309** Environmental Sciences-Biological Aspects [\[1\]](#)
  - **EVSE 5310** Environmental Sciences -Chemical Aspects [\[1\]](#)
  - **EVSE 5311** Environmental Sciences -Geological Aspects [\[1\]](#)

[\[1\]](#) Students with less than 20 undergraduate hours in biology, chemistry, or geology will need to take a third environmental systems course as a deficiency. Students entering with a BS degree in one of these areas must take their two courses in the other areas.

- One of the following three courses in City and Regional Planning (3 Hours)
  - **CIRP 5342** Environmental Policy
  - **CIRP 5343** Foundations of Environmental Policy
  - **CIRP 5351** Techniques of Environmental Assessment

**Thesis Option:** In addition to the core courses listed above, the minimum requirements for the master's degree with thesis include:

- 9 hours of electives within one of the following departments: Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs
- 6 hours of additional electives
- 2 hours of EVSE seminar
- 6 hours thesis and the successful defense of the thesis before the supervising committee.

**Non-thesis Option:** In addition to the core courses listed above the minimum requirements for the master's degree without thesis include:

- 9 hours of electives within one of the following departments: Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs
- 12 hours of additional electives [\[2\]](#)
- 2 hours of EVSE seminar
- Successful completion of the Master's Comprehensive Examination in the final semester.

[\[2\]](#) Must include at least 6 hours in department(s) outside that in which the first 9 hours of electives are taken.

### The Geoscience Option:

Engineering (3 hours)

**CE 5321**, or **IE 3312**, or advisor approved.

Outside Science (3 hours)

**EVSE 5309**, or **EVSE 5310**, or advisor approved.

Seminar (2 hours)

**GEOL 5199** or **EVSE 6100**

**Thesis Option:** In addition to the core courses listed above the minimum requirements are:

- Advisor approved electives (18 hours)
- **Geol 5698** Thesis (6 hours)

**Non-Thesis Option:** In addition to the core courses listed above the minimum requirements are:

Advisor approved electives (27 hours)

**Environmental Science Professional Option:** The minimum requirements for the Professional Option include:

- Engineering (6 hours)
- **IE 3312** and **CE 5321**

Two of the following courses in science (6 hours):

- **EVSE 5309** Environmental Sciences-Biological Aspects [\[3\]](#)
- **EVSE 5310** Environmental Sciences -Chemical Aspects [\[3\]](#)
- **EVSE 5311** Environmental Sciences -Geological Aspects [\[3\]](#)

[\[3\]](#) Students with less than 20 undergraduate hours in biology, chemistry, or geology will need to take a third environmental systems course as a deficiency. Students entering with a BS degree in one of these areas must take their two courses in the other areas.

One of the following three courses in City and Regional Planning (3 Hours)

- **CIRP 5342** Environmental Policy
- **CIRP 5343** Foundations of Environmental Policy
- **CIRP 5351** Techniques of Environmental Assessment

Professional Courses (8 hours)

- **EVSE 5120**, Environmental Professional Mentoring and Business Ethics (2 semesters).
- **EVSE 5315**, Professional Experience
- **EVSE 5395**, Master's Project

Other Electives (15 hours)

- 9 hours of electives within one of the following departments: Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs
- 6 hours of additional electives

**The Petroleum Geoscience Professional Option:** The minimum requirements for the Petroleum Geoscience Professional Option include:

- Engineering (3 hours)
- **IE 3312**, or advisor approved.
- Professional Courses (2 hours)
  - **GEOL 5180** or **EVSE 5110**, Environmental Professional Mentoring and

#### Business Ethics.

- **GEOL 5190**, Professional Experience
- Other courses (27 hours):
  - **GEOL 5345** Petroleum Geology
  - **GEOL 5369** Sequence Stratigraphy
  - **GEOL 5371** Basin Modeling
  - **GEOL 5372** Structural Geometry and Tectonics of Petroleum Fields
  - **GEOL 5373** Reservoir Characterization
  - **GEOL 5374** Seismic Interpretation
  - **GEOL 5375** Introduction to Well Log Interpretation and Mapping
  - **GEOL 5698** Thesis

### Dual Degree Program

Dual master's degrees can be arranged with any suitable program. By participating in a dual degree program, students may apply 6-18 total semester credit hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from six to 18, subject to the approval of Graduate Advisors from both programs. Degree plans, thesis or professional report proposals and programs of work must be approved by Graduate Advisors from both programs. The successful candidate will be awarded both degrees rather than one joint degree.

To participate in the dual degree program, students must make separate application to each program and must submit a separate program of work for each degree. Those interested in the dual degree program should consult the appropriate Graduate Advisors for further information on course requirements. See also the statement on Dual Degree Programs in the general information section of this catalog.

Arrangements to offer a dual degree have already been made between Environmental and Earth Sciences and the Program in City and Regional Planning (M.C.R.P. degree), School of Urban and Public Affairs.

### Environmental and Earth Sciences Doctoral Degree

The Doctoral Program provides students with the interdisciplinary knowledge and skills to conduct independent research in Environmental and Earth Sciences. Students conduct dissertation research under the supervision of a faculty member in one of the participating departments (Biology, Chemistry, Earth and Environmental Sciences, Civil and Environmental Engineering, or Urban and Public Affairs). The supervising professor and a faculty committee assign courses in this primary area of emphasis to support the student's research and professional goals. To provide interdisciplinary training, additional courses are assigned in a secondary area of emphasis.

If they have not already done so in their previous work, all Doctoral students must take two engineering courses; two or three science courses (two if their prior training is in science, three if in engineering or another non-science field); and one course in policy or planning.

Students who enter the Doctoral Program with a Master's degree in a science or engineering field, or with 30 semester hours of graduate coursework, take a Diagnostic Examination in the first year of residence to evaluate this previous work. The student's supervising committee must approve all courses taken to meet degree requirements.

Students who enter the Doctoral Program with a Bachelor's degree take 30 semester hours of graduate coursework that includes Engineering, Science and Public Policy courses. These students are encouraged to take the diagnostic exam in their first year of enrollment. The student's supervising committee must approve all courses taken to meet degree requirements.

Students may choose among any of the five participating units for their primary and secondary

areas of emphasis. Course selection within these areas of emphasis is guided by the student's supervising committee and must result in a cohesive program that supports the dissertation research.

Other requirements include:

1. Successful completion of the Diagnostic Examination at the end of the first year of residence.
2. Successful completion of the Comprehensive Examination, an oral defense of a research proposal to be pursued for the dissertation, and a specialization examination over areas of the student's proposed research.
3. Demonstration of proficiency in one foreign language or a research tool such as advanced computer skills, statistics, or operations research.
4. Successful defense of the dissertation and acceptance of the dissertation by the supervising committee.

## **EVSE Courses**

### **EVSE5100 – SELECTED TOPICS IN ENVIRONMENTAL SCIENCE AND ENGINEERING**

1 Lecture Hour · 0 Lab Hours

May be repeated for credit when topic changes.

### **EVSE5120 – ENVIRONMENTAL PROFESSIONAL MENTORING & BUSINESS ETHICS**

1 Lecture Hour · 0 Lab Hours

Provides credit to students participating in an approved mentoring program with an experience environmental professional. May be repeated once for credit.

### **EVSE5200 – SELECTED TOPICS IN ENVIRONMENTAL & EARTH SCIENCES**

2 Lecture Hours · 0 Lab Hours

May be repeated for credit when topic changes.

### **EVSE5294 – INDIVIDUAL PROBLEMS IN ENVIRONMENTAL & EARTH SCIENCES**

2 Lecture Hours · 0 Lab Hours

Individual research projects supervised by a faculty member.

### **EVSE5300 – SELECTED TOPICS IN ENVIRONMENTAL & EARTH SCIENCE**

3 Lecture Hours · 0 Lab Hours

May be repeated for credit when topic changes.

### **EVSE5309 – ENVIRONMENTAL SYSTEMS-BIOLOGICAL ASPECTS**

3 Lecture Hours · 0 Lab Hours

An introduction to the biological components of environmental systems. Population dynamics, species interactions, community structure, biodiversity, bioenergetics, nutrient cycling and human impacts are reviewed. Focus will be on natural processes and their engineering applications.

### **EVSE5310 – ENVIRONMENTAL SYSTEMS-CHEMICAL ASPECTS**

3 Lecture Hours · 0 Lab Hours



An introduction to the chemistries of air at different altitudes, of water systems and of soils. Chemical and physico-chemical processes at phase boundaries, modeling for kinetics and mass transport, analytical techniques and disposal and recycling are included as well as their impact on engineering decisions.

### **EVSE5311 – ENVIRONMENTAL SYSTEMS-GEOLOGICAL ASPECTS**

**3** Lecture Hours · **0** Lab Hours

Introduction to the tectonic, volcanic, atmospheric, climatic, hydrologic and geochemical processes and natural hazards of the earth, and their interaction with political, economic and engineering decisions.

### **EVSE5315 – PROFESSIONAL EXPERIENCE**

**3** Lecture Hours · **0** Lab Hours

Provides credit to students participating in an approved internship or part-time work experience.

### **EVSE5320 – TOXICOLOGY**

**3** Lecture Hours · **0** Lab Hours

An introduction to the general principles of toxicology with an emphasis on certain classes of toxic agents, their sources and toxic effects, as well as their environmental fate. Prerequisite: CHEM 2322.

### **EVSE5321 – HEALTH RISK ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

An introduction to health considerations relevant to environmental projects. Prepares students to take the Registered Environmental Health Specialist Examination.

### **EVSE5322 – ENVIRONMENTAL RISK ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

An introduction to the health assessment process, presenting methodologies and guidelines for conducting health assessments.

### **EVSE5323 – ISSUES IN ENVIRONMENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

An introduction to health issues of current concern resulting from environmental exposures. Topics include: environmental asthma, endocrine disruptors, climate change and health, emerging contaminants, nanotechnology and health, airborne particles and pediatric health.

### **EVSE5350 – CONTAMINANT HYDROGEOLOGY**

**3** Lecture Hours · **0** Lab Hours

Sources and types of various organic and inorganic contaminants; the physical, chemical, and biological factors and processes that affect the transport and fate of contaminants in the subsurface; non-aqueous phase liquids and multiphase flow; and various remedial techniques of contaminated sites. Prerequisite: GEOL 4320 or GEOL 5328 (or concurrent enrollment).

### **EVSE5351 – GEOMORPHOLOGY AND QUATERNARY STRATIGRAPHY OF SEDIMENTARY SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

This course examines those physical processes that sculpt the surface of the Earth and result in deposition of sediments. Surface systems covered include weathering, mass wasting, rivers, shorelines, eolian processes, and glaciers. The course also examines the stratigraphic techniques used to decode the recent (2 million to present) stratigraphic record of these systems. Course is designed for geologists, biologists, and other fields concerned with interpreting and/or managing modern environments.

### **EVSE5352 – OCEANOGRAPHY**



**3** Lecture Hours · **0** Lab Hours

The many aspects of oceanography with special emphasis on physical oceanography and marine geology.

### **EVSE5394 – INDIVIDUAL PROBLEMS IN ENVIRONMENTAL & EARTH SCIENCES**

**3** Lecture Hours · **0** Lab Hours

Individual research projects supervised by a faculty member. Prerequisite: consent of instructor.

### **EVSE5395 – MASTER'S PROJECT**

**3** Lecture Hours · **0** Lab Hours

May be used as elective for students in non-thesis program. Graded F, P.

### **EVSE5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

### **EVSE5405 – METEOROLOGY AND CLIMATOLOGY**

**3** Lecture Hours · **3** Lab Hours

A quantitative approach to the study of the structure, energy, and motions of the atmosphere.

### **EVSE5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded F, P, R.

### **EVSE5998 – THESIS**

**9** Lecture Hours · **0** Lab Hours

Graded F, P, R.

### **EVSE6100 – SEMINAR IN ENVIRONMENTAL & EARTH SCIENCES**

**1** Lecture Hour · **0** Lab Hours

Topics presented by faculty, students, and invited lecturers.

### **EVSE6197 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCES**

**1** Lecture Hour · **0** Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6297 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCES**

**2** Lecture Hours · **0** Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6397 – RESEARCH IN ENVIRONMENTAL AND EARTH SCIENCES**

**3** Lecture Hours · **0** Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

### **EVSE6697 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCE**

6 Lecture Hours · 0 Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6699 – DISSERTATION**

6 Lecture Hours · 0 Lab Hours

Graded F, R, P, W.

### **EVSE6997 – RESEARCH IN ENVIRONMENTAL & EARTH SCIENCE**

9 Lecture Hours · 0 Lab Hours

Individually approved research projects. May be repeated for credit. Graded F, P, R.

### **EVSE6999 – DISSERTATION**

9 Lecture Hours · 0 Lab Hours

Graded F, P, R.

### **EVSE7399 – DOCTORAL DEGREE COMPLETION**

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## **GEOL Courses**

### **GEOL5180 – PROFESSIONAL ORIENTATION AND BUSINESS ETHICS**

1 Lecture Hour · 0 Lab Hours

A mentoring program using working professionals selected by the Earth and Environmental Sciences Department. Each participant meets at least once a month with a mentor who provides information on practices and skills necessary to succeed in the workplace. Course participants review business ethics statements provided by the mentor's company or other companies and write a critique based on materials from professional business ethics organizations such as the International Business Ethics Institute. Prerequisite or concurrent enrollment GEOL 5345.

### **GEOL5181 – RESEARCH IN GEOLOGY**

1 Lecture Hour · 0 Lab Hours

Independent study in various areas of research including paleontology, stratigraphy, tectonics, structural geology, sedimentology, geochemistry, petrology, geophysics, and volcanology. May be repeated for credit. Graded P/F/R/W.

### **GEOL5190 – GEOSCIENCE INTERNSHIP**

1 Lecture Hour · 0 Lab Hours

Work in geoscience for a commercial concern at least 20 hrs/wk for 3 months. Requirements include writing a resume, learning how to interview and function on the job, and a report describing the work. Prerequisite: Geol 5345 or concurrent enrollment.

### **GEOL5199 – TECHNICAL SESSIONS**

1 Lecture Hour · 0 Lab Hours

Forum for presentation of results of graduate students and faculty research. Required each semester of all graduate students.

### **GEOL5265 – TOPICS IN GEOL**

1 Lecture Hour · 2 Lab Hours

### **GEOL5281 – RESEARCH IN GEOLOGY**

2 Lecture Hours · 0 Lab Hours

Independent study in various areas of research including paleontology, stratigraphy, tectonics, structural geology, sedimentology, geochemistry, petrology, geophysics, and volcanology. May be repeated for credit. Graded P/F/R/W.

### **GEOL5301 – ENVIRONMENTAL GEOCHEMISTRY**

3 Lecture Hours · 0 Lab Hours

Fundamentals of low-temperature aqueous geochemistry, and anthropogenic impacts on natural water systems. Topics include equilibrium thermodynamics, kinetics, aqueous complexation, and oxidation/reduction processes that affect metals and organic matter in natural waters.

### **GEOL5302 – GLOBAL TECTONICS**

3 Lecture Hours · 0 Lab Hours

Plate tectonic theory and evidence, review of plate tectonic history since the late Precambrian. Prerequisite: Geol 3442, Geol 3443.

### **GEOL5304 – SOLID EARTH GEOMECHANICS**

3 Lecture Hours · 0 Lab Hours

Application of continuum mechanics to understanding deformation in the earth, including mechanical analysis of natural geologic structures such as faults, folds, lava flows, and dikes, as well as practical problems related to reservoir geomechanics and mining applications. Prerequisite: GEOL3443, MATH2325, PHYS1441 or PHYS 1443.

### **GEOL5306 – ENVIRONMENTAL GEOLOGY**

3 Lecture Hours · 0 Lab Hours

Hydrological systems, water quality, and behavior of pollutants; atmospheric systems, air quality, and effects of pollutants; occurrence, prediction, and amelioration of natural environmental hazards including floods, earthquakes, volcanism, and landslides.

### **GEOL5308 – PALEOCLIMATE AND CLIMATE CHANGE**

3 Lecture Hours · 0 Lab Hours

Climate change throughout geologic time, especially the last 100 million years: models of the climate system, reconstruction and modeling of past climates, abrupt climate change, warm climates, paleoclimatology, climate change and mass extinctions.

### **GEOL5309 – GEOMORPHOLOGY & QUATERNARY STRATIGRAPHY OF SEDIMENTARY SYSTEMS**

3 Lecture Hours · 0 Lab Hours

This course examines those physical processes that sculpt the surface of the Earth and result in deposition of sediments. Surface systems covered include weathering, mass wasting, rivers, shorelines, eolian processes, and glaciers. The course also examines the stratigraphic techniques used to decode the recent (2 million to present) stratigraphic record of these systems. Course is designed for geologists, biologists, and other fields concerned with interpreting and/or managing modern environments.

### **GEOL5312 – SANDSTONE PETROLOGY**

**3** Lecture Hours · **0** Lab Hours

Petrographic examination of terrigenous clastics, including textural, compositional, and diagenetic aspects. Focus on paleogeographic, tectonic, and environmental interpretation. Prerequisite: GEOL 3442.

### **GEOL5313 – CARBONATE PETROLOGY**

**2** Lecture Hours · **3** Lab Hours

Nature and composition of ancient and modern carbonate sediments and rocks in terms of their genesis, depositional environments, biological constituents, and processes involved in transport, deposition, diagenesis, and lithification. Knowledge of stratigraphy and paleontology is necessary for success in this course. Prerequisite: GEOL 3442 or permission of the instructor.

### **GEOL5320 – UNDERSTANDING GEOGRAPHIC INFORMATION SYSTEMS**

**2** Lecture Hours · **1** Lab Hour

A practical introduction to GIS and methods of creating, maintaining and displaying spatial data using the ArcGIS software.

### **GEOL5321 – ANALYSIS OF SPATIAL DATA**

**2** Lecture Hours · **1** Lab Hour

Analyzing spatial data using ArcGIS, Spatial Analyst, and 3D Analyst, topological surface analysis and modeling; 3D visualization and viewscales; spatial statistics and data quality management. Prerequisite: GEOL 4330 or GEOL 5320.

### **GEOL5322 – GLOBAL POSITIONING SYSTEM**

**2** Lecture Hours · **1** Lab Hour

Review of the NAVSTAR Global Positioning System and its segments: space, operational control, and GPS receivers. Mechanics of the satellite constellation; GPS signal structure; data and coordinate systems; precision and accuracy; error factors; absolute (point) versus relative (differential) positioning. Various positioning techniques using several types of GPS receivers; field data collection and input into GIS programs for data analysis and presentation. Prerequisite: GEOL 4330 or GEOL 5320.

### **GEOL5323 – REMOTE SENSING FUNDAMENTALS**

**2** Lecture Hours · **1** Lab Hour

The electromagnetic spectrum and the interaction of EM waves with matter; various types of sensing devices; spectral and spatial resolution parameters; airborne and satellite sensor platforms; aerial photographs and false-color images. The sequence of data acquisition, computer processing and interpretation; sources of data; the integration of remote sensing data with other data types in GIS. Prerequisite: GEOL 4330 or GEOL 5320.

### **GEOL5324 – GEOGRAPHIC DATA ANALYSIS PROJECT**

**3** Lecture Hours · **0** Lab Hours

Acquisition, processing and analysis of a set of spatial data selected by the student with the approval of the instructor. A written report of the results is required. Prerequisite: GEOL 5320, GEOL 5321, and GEOL 5323.

### **GEOL5328 – HYDROGEOLOGY**

**3** Lecture Hours · **0** Lab Hours

Hydrologic cycle, Darcy's law, hydraulic properties, aquifer types and materials, groundwater flow to wells, fracture flow, vadose zone flow, groundwater chemistry, and groundwater modeling; a term paper about the relevant topics covered in the class is required. Prerequisites: GEOL 2446, MATH 2425

### **GEOL5332 – STABLE ISOTOPE GEOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Principals governing the fractionation and distribution of stable isotopes (C, H, N, O, S) in nature, and application of stable isotope geochemistry to environmental problems and global climate change.

### **GEOL5333 – FIELD METHODS**

**3** Lecture Hours · **0** Lab Hours

### **GEOL5334 – ANALYTICAL METHODS IN ENVIRONMENTAL SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Principals of geochemical analysis of waters, rocks and soils, and gases. Methods to be covered include x-ray fluorescence and diffraction, mass spectrometry, coulometry, inductively-coupled plasma, and gas/ion chromatography with various detection methods.

### **GEOL5335 – ISOTOPES AND TECTONICS**

**3** Lecture Hours · **0** Lab Hours

An Introduction to the fundamentals of clumped isotopes, and major radiogenic and cosmogenic isotope systems and their applications to the study of earth system processes and Earth history; emphasis will be placed on applications to tectonics, geochronology, and thermochronology. Prerequisite: CHEM 1442 or GEOL 4302.

### **GEOL5342 – MICROFOSSILS AND THE CORRELATION OF SEDIMENTARY ROCKS**

**2** Lecture Hours · **3** Lab Hours

This course is an introduction to microfossil groups useful in the regional and global correlation of sedimentary rock strata throughout the Phanerozoic. Microfossils record plant, animal, and protist life forms including foraminifers, radiolarians, ostracodes, conodonts, algae, and coccolithophorids. Morphology, taxonomy, and biostratigraphy of these groups will be stressed along with the principles used in the correlation of sedimentary rocks. Prerequisite: GEOL 3441 and GEOL 3442.

### **GEOL5344 – DEPOSITIONAL ENVIRONMENTS: TERRIGENOUS CLASTICS**

**3** Lecture Hours · **0** Lab Hours

Depositional processes, physiographic and environmental components, and facies characteristics and relationships of alluvial, eolian, deltaic, clastic shoreline, shallow siliciclastic sea and deep sea clastic depositional systems. Emphasis on interpretation of ancient analogs. Prerequisite: GEOL 3442.

### **GEOL5345 – PETROLEUM GEOLOGY**

**2** Lecture Hours · **3** Lab Hours

Origin, generation and migration of petroleum; reservoirs, seals and traps; the subsurface environment; properties of petroleum; exploration and production methods; use of seismic lines and well logs; types of petroleum basins; reserves and resources.

### **GEOL5348 – MARINE GEOLOGY AND GEOCHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

Geologic and geochemical processes of the oceans. Chemistry of seawater; geochemical and biogeochemical cycles; carbonate sediment production.

### **GEOL5350 – CONTAMINANT HYDROGEOLOGY**

**3 Lecture Hours · 0 Lab Hours**

Sources and types of organic and inorganic contaminants; the physical, chemical, and biological factors and processes that affect the transport and fate of contaminants in the subsurface; non-aqueous phase liquids and multiphase flow; and various remedial techniques of contaminated sites. Prerequisite: GEOL 4320 or GEOL 5328 (or concurrent enrollment).

### **GEOL5365 – TOPICS IN GEOLOGY**

**2 Lecture Hours · 3 Lab Hours**

Topics offered depend on student and faculty interest. Such topics might include identification of fossil fragments in thin section; magmatic processes; plate tectonics and sedimentary basin evolution; stratigraphic paleontology; sedimentary or volcanogenic ore deposition; geostatistics; geophysical archeology; and various advanced subjects in sedimentology, stratigraphy, paleontology, geophysics, geochemistry, volcanology and petrology. May be repeated for credit when topic changes.

### **GEOL5369 – SEQUENCE STRATIGRAPHY**

**3 Lecture Hours · 0 Lab Hours**

This course introduces sequence stratigraphy within context of all stratigraphy and history of sequence stratigraphy. Includes overview of sequence stratigraphy principles. Review of basic fundamental concepts of surface- and facies-based physical stratigraphy. Review of architectural element analysis, sequence stratigraphic in seismic, borehole expression of sequences and overview of subsurface stratigraphic techniques.

### **GEOL5370 – SEDIMENTARY SYSTEMS**

**3 Lecture Hours · 0 Lab Hours**

Carbonate and clastic depositional systems, recognition of facies, systems tracts, diagenetic overprint, shelf to basin profiling, and sequence stratigraphic analysis.

### **GEOL5371 – BASIN ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Topics include: the classification and characteristics of sedimentary basins and the mechanisms forming them; and the tectonic, climatic, and eustatic controls on basin subsidence and the basin fill. Applications include the influence of basin evolution on petroleum generation, migration, and accumulation. Prerequisite GEOL 3442 (Sedimentology and Stratigraphy).

### **GEOL5372 – STRUCTURAL GEOMETRY AND TECTONICS OF PETROLEUM FIELDS**

**2 Lecture Hours · 1 Lab Hour**

Structural styles of thin-skinned, basement involved and reactivated systems in shortening, extensional and strike-slip deformation. Use of structural modeling and restoration methods to test the reliability of structural interpretations.

### **GEOL5373 – RESERVOIR CHARACTERIZATION**

**3 Lecture Hours · 0 Lab Hours**

Principles, protocols, analysis and measurement of petrophysical properties (e.g., fluid content, porosity, permeability, pore size distribution, water retention curve, imbibition) of petroleum reservoir rocks.

### **GEOL5374 – SEISMIC INTERPRETATION**

**3 Lecture Hours · 0 Lab Hours**

Introduction to the methods of acquisition and processing as they relate to the interpretation of seismic records. Structural and stratigraphic interpretation methods and pitfalls using two and three dimensional seismic data. Introduction to Seismic Interpretation Software such as the Kingdom Suite from Seismic Micro Technology, Inc. Prerequisite GEOL 5345 or concurrent enrollment.

## **GEOL5375 – INTRODUCTION TO WELL LOG INTERPRETATION AND MAPPING**

**2** Lecture Hours · **2** Lab Hours

Introduction to the various types of well logs used in the petroleum industry and their petrophysical interpretations, including evaluations of porosity, water saturation, shale volume, permeability, and lithology. Introduction to techniques of contouring data and use of mapping software such as PETRA. Prerequisite GEOL 5345 or concurrent enrollment.

## **GEOL5381 – RESEARCH IN GEOLOGY**

**3** Lecture Hours · **0** Lab Hours

Independent study in various areas of research including paleontology, stratigraphy, tectonics, structural geology, sedimentology, geochemistry, petrology, geophysics, and volcanology. May be repeated for credit. Graded R.

## **GEOL5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

Graded F, R.

## **GEOL5405 – METEOROLOGY AND CLIMATOLOGY**

**3** Lecture Hours · **3** Lab Hours

A quantitative approach to the study of the structure, energy, and motions of the atmosphere.

## **GEOL5409 – APPLIED GEOPHYSICS**

**3** Lecture Hours · **3** Lab Hours

Geophysical Techniques used to determine the presence and extent of deposits of minerals and the subsurface structure of selected localities from field methods.

## **GEOL5410 – PHYSICAL OCEANOGRAPHY**

**3** Lecture Hours · **3** Lab Hours

Oceanographic instrumentation and measurements; physical properties of sea water; heat and salt budgets; thermal distribution; wind-driven and thermohaline circulation; mass of the world's oceans; waves and tides. Prerequisites: PHYS 1443; MATH 2425

## **GEOL5698 – THESIS**

**0** Lecture Hours · **0** Lab Hours

Graded F, P, R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
    - Architecture
    - Landscape Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Architecture

### Dean Donald Gatzke

### Associate Dean David Jones

Web [www.uta.edu/architecture/](http://www.uta.edu/architecture/)

Email [soa@uta.edu](mailto:soa@uta.edu)

Phone 817.272.2801

Fax 817.272.5098

203 Architecture Building  
[601 W Nedderman Dr](#)  
Box 19108, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Architecture

[Kathryn Holliday](#)  
[Heath Macdonald](#)  
[Kevin Sloan](#)  
[Bijan Youssefzadeh](#)

#### Associate Dean

[David Jones](#)

#### Professor

[Edward Baum](#)  
[Robert Hamilton](#)  
[Craig Kuhner](#)  
[John McDermott](#)  
[Madan Mehta](#)

#### Associate Professor

[George Gintole](#)  
[David Hopman](#)  
[John Maruszczak](#)  
[Steven Quevedo](#)

#### Senior Lecturer

[Bill Boswell](#)

#### Lecturer

[Ogden Bass](#)

#### Landscape Architecture

#### Associate Professor

[Pat Taylor](#)

---



## Graduate Advisors

### Cheryl Donaldson

*Architecture, M.ARCH.  
Architecture, Non-Degree Seeking*

### David Jones

*Architecture, M.ARCH.*

### Pat Taylor

*Landscape Architecture, M.L.A.*

### Bijan Youssefzadeh

*Architecture, M.ARCH.  
Architecture, Non-Degree Seeking*

## Programs

### Mission and Philosophy

### History and Overview

### Accreditation

### Scholastic Activity and Research Interests of the Faculty

### Special Programs and Opportunities

## Programs

- **Master of Architecture**
- **Master of Landscape Architecture**

## Mission and Philosophy

The mission of the graduate Architecture and Landscape Architecture programs is to prepare students for sustained contributions and leadership in the design professions. This mission occurs in partnership with the larger University. Together the programs and the University share the aim of educating broadly to the demands of a complex society and, more specifically, to the demands of sophisticated and changing professions.

## History and Overview

Architecture was first taught at what is now The University of Texas at Arlington in the early 1940s as a two-year, non-degree program within the School of Engineering. In 1968, with the support of professional architects in the Dallas/Fort Worth area, architecture became a department of the College of Liberal Arts, granting the degree of Bachelor of Science in Architecture. The department prospered, and by 1973 a decision was made to establish a separate school of architecture based on a four-year undergraduate program with a two-year master of architecture program as the professional degree.

By 1978, the School of Architecture and Environmental Design (as it was named in 1974) had an enrollment of more than 1,000 students with 31 full-time faculty. Four programs were included at that time: architecture, interior design, landscape architecture, and city and regional planning. Subsequently, planning moved to the Institute of Urban Studies. In 1989, the school was renamed the School of Architecture.

Architecture and landscape architecture are seen as both the means and the goal of the education we offer. As *means*, our fields provide a ready path to the larger domain of ideas, history and the human condition. Architecture was seen, after all, as one of the essential liberal arts during the Renaissance. As *goals*, our fields call upon us to learn specific professional knowledge and skills they focus our attitudes and abilities to produce tangible, concrete things. This demand that we alternately widen and narrow our vision is one of the great strengths of the fields and is one source of their effectiveness as courses of study.

Within a broad curriculum, design as a discipline and a process is emphasized. Students are encouraged to give rich visual and material substance to both theoretical and pragmatic ideas. The context for design at UT Arlington centers on the contemporary urban condition, an approach

appropriate for a school at the heart of a diverse, expanding and internationally oriented region like Dallas/Fort Worth.

The school's location at the center of the Dallas/Fort Worth area is especially important for students of architecture and landscape architecture. Almost every cultural, social and professional opportunity is nearby. The urban setting serves as a laboratory to observe the issues that confront current design and to test the proposals put forward. Built work by many of the foremost contemporary architects and landscape architects may be experienced and studied firsthand. Kahn, Pei, Wright, Johnson, Meier, Legoretta, Rudolph, Giurgola, Barnes, Predock, Holl, KPF, Kiley and Walker all have major projects here.

The School of Architecture offers large and up-to-date facilities for research and study. Constructed in 1984, the Architecture Building houses studios, classrooms and offices in addition to a CAD laboratory, a photography studio, a materials shop, a slide library and the Architecture and Fine Arts Library, with 40,000 books and 190 periodicals. The UT Arlington Libraries contains more than 1 million volumes, and students have access to The University of Texas System Library, which house 12 million volumes.

The School of Architecture has an enrollment of approximately 1,000 students, of whom about 160 are graduate students. They come from all parts of the United States and the world; more than 20 percent are international students. About one-third of the graduate students are women.

In terms of recognition of quality, 134 School of Architecture students have received awards in 63 major design or research competitions over the last 10 years, most at the national or international level. This unsurpassed record of competitive accomplishment reflects the education focus of the school. Developed student abilities, along with a tradition of integrating work and academic experience, give UT Arlington graduates ready entry and advancement in the professional world.

### **Accreditation**

The school offers the Master of Architecture and the Master of Landscape Architecture as first professional degrees in the respective programs. The former is accredited by the National Architecture Accrediting Board and the latter by the Landscape Architecture Accrediting Board. The M.Arch. and the M.L.A. taken as second, or post-professional degrees, do not carry professional accreditation.

### **Scholastic Activity and Research Interests of the Faculty**

The faculty-full-time, adjunct and part-time-are involved in their areas of academic and professional interest. This takes many forms: built projects, design studies and competitions, scholarly writing and applied research. This work enriches the teaching mission and provides contributions to the larger community. For a detailed listing of faculty activity, see the **Faculty Catalog**, available from the School of Architecture.

### **Special Programs and Opportunities**

Visiting faculty members are an integral part of the graduate program at UT Arlington. Noted teachers from other schools in the United States and abroad as well as distinguished practicing designers offer advanced studios and courses each year. Thus, students have access to both a core of permanent faculty members and to a changing spectrum of approaches and values. In addition to on-campus coursework, graduate students may study and travel abroad as an integrated part of the curriculum. The school maintains semester-long, full-credit student exchanges during the academic year with architecture schools at the Universities of Barcelona (Spain,) Lund (Sweden,) Innsbruck (Austria,) and Cottbus (Germany.) During the summer, there is a full-credit, five-week travel program to Rome, Florence and Verona, Italy.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
    - Accounting
    - Business Administration
    - Economics
    - Finance and Real Estate
    - Health Care Administration
    - Information Systems & Operations Management
    - Management
    - Marketing
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Business

### Dean [Rachel Croson](#)

Associate Dean [Gregory Frazier](#)  
Associate Dean [Chandra Subramaniam](#)

Web [www.uta.edu/business/](http://www.uta.edu/business/)  
Email [question@uta.edu](mailto:question@uta.edu)  
Phone 817.272.2881  
Fax 817.272.2073

334 Business Building  
[701 S West Street](#)  
Box 19377, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Accounting

[Sandra Bitenc](#)  
[Billy Brewster](#)  
[Terra Mcghee](#)  
[Stephanie Rasmussen](#)

#### Professor

[Thomas Hall](#)  
[Li-Chin Jennifer Ho](#)  
[Donald McConnell](#)  
[Martin Taylor](#)  
[Jeffrey Tsay](#)

#### Associate Professor

[Bethane Hall](#)  
[Richard Mark](#)  
[Terrance Skantz](#)  
[Chandra Subramaniam](#)

#### Assistant Professor

[Jap Efendi](#)  
[Glyn Winterbotham](#)

#### Assistant Adjunct Professor

[Sandra Henderson](#)

#### Senior Lecturer

[John Repsis](#)

#### Lecturer

[Carly Andrews](#)

#### Business Administration

Assistant Dean

**David Mack**

**Coordinator of International Programs**

**Pui-Ying Chin**

**Director**

**Melanie McGee**

**EMBA Executive Director**

**James Ellis**

**Associate Professor**

**Edmund Prater**

**Economics**

**Professor**

**William Crowder**

**Daniel Himarios**

**Roger Meiners**

**Michael Ward**

**Associate Professor**

**Chi Young Choi**

**Aaron Smallwood**

**Mahmut Yasar**

**Assistant Professor**

**Joshua Price**

**Christy Spivey**

**Visiting Assistant Professor**

**Shalah Mostashari**

**Clinical Professor**

**Jane Himarios**

**Associate Clinical Professor**

**Olga Isengildina**

**Timothy Wunder**

**Finance and Real Estate**

**John Dowdy**

**Professor**

**John David Diltz**

**Associate Professor**

**Darren Hayunga**

**Sanjiv Sabherwal**

**Salil Sarkar**

**Assistant Professor**

**John Adams**

**Necmettin Gormus**

**Arun Narayanasamy**

**Assistant Adjunct Professor**

**Daniel Lowrance**

**Professor Emeritus**

**Vincent Apilado**

**Clinical Professor**

**Fred Forgey**

**Lecturer**

**Lee Schwemer**

**Health Care Administration**

**Director**

**Demetria Wilhite**

**Clinical Professor**  
[Mike West](#)

## **Information Systems & Operations Management**

[Kay yut Chen](#)

**Professor**  
[Revenor Baker](#)  
[Mark Eakin](#)  
[Gregory Frazier](#)  
[Radha Mahapatra](#)  
[M K Raja](#)  
[Craig Slinkman](#)  
[James Teng](#)  
[Mary Whiteside](#)

**Associate Professor**  
[Alan Cannon](#)  
[Sridhar Nerur](#)  
[Edmund Prater](#)  
[Riyaz Sikora](#)  
[Jingguo Wang](#)  
[Jie Zhang](#)

**Senior Lecturer**  
[Carolyn Davis](#)

## **Management**

**Professor**  
[Myrtle Bell](#)  
[Deepak Datta](#)  
[David Gray](#)  
[Jim Quick](#)  
[Abdul Rasheed](#)

**Associate Professor**  
[George Benson](#)  
[Wendy Casper](#)  
[Susanna Khavul](#)  
[James Lavelle](#)  
[Margaret Mcfadyen](#)  
[Jeffrey Mcgee](#)  
[Gary McMahan](#)  
[Liliana Nordtvedt](#)

**Assistant Professor**  
[Marcus Butts](#)  
[Feirong Yuan](#)

**Assistant Clinical Professor**  
[Janice Baldwin](#)  
[Beverly George](#)  
[Jeanne Michalski](#)  
[Terrance Wilensky](#)

**Lecturer**  
[Dennis Veit](#)

## **Marketing**

**Assistant Professor and Graduate Advisor of Marketing Department Ph.D. Program**  
[Ritesh Saini](#)

**Professor**  
[Lawrence Chonko](#)  
[Xueming Luo](#)

**Associate Professor**  
[Elten Briggs](#)  
[Traci Freling](#)  
[Douglas Grisaffe](#)

**Assistant Professor**  
**Narayanan Janakiraman**  
**J Fernando Jaramillo**  
**Adwait Khare**  
**Zhiyong Yang**

**Clinical Professor**  
**Robert Rogers**

**Associate Clinical Professor**  
**Gary Lacefield**

**Assistant Clinical Professor**  
**Michael Richarme**

---

## Graduate Advisors

**Wendy Casper**  
*Management (Business Administration), Ph.D.*

**Carolyn Davis**  
*Information Systems, M.S.*

**John David Diltz**  
*Quantitative Finance, M.S.*

**Fred Forgey**  
*Real Estate, M.S.*

**Gregory Frazier**  
*Accounting, Ph.D.*  
*Business Administration, Ph.D.*  
*Finance (Business Administration), Ph.D.*  
*Information Systems (Business Administration), Ph.D.*  
*Management (Business Administration), Ph.D.*  
*Marketing (Business Administration), Ph.D.*

**Linda Goggans**  
*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**David Mack**  
*Executive M.B.A.*

**Radha Mahapatra**  
*Information Systems (Business Administration), Ph.D.*

**Rebecca Neilson**  
*Business Administration, M.B.A. (Flexible Format)*  
*Business Administration, M.B.A. (Professional Cohort)*  
*Business Administration, M.B.A. Non-Degree Seeking*  
*Graduate Advanced Studies Business Certificate*  
*Online Business Administration (Online M.B.A.)*

**Edmund Prater**  
*Business Administration, Ph.D.*

**John Repsis**  
*Accounting, M.S.*  
*Professional Accounting, M.P.A.*  
*Taxation, M.S.*

**Robert Rogers**  
*Marketing Research, M.S.*

**Ritesh Saini**  
*Marketing (Business Administration), Ph.D.*  
*Marketing Research, M.S.*

**Salil Sarkar**

*Finance (Business Administration), Ph.D.*

**Chandra Subramaniam**

*Accounting, M.S.  
Accounting, Non-Degree Seeking  
Business Administration, M.B.A. (Flexible Format)  
Business Administration, M.B.A. (Professional Cohort)  
Business Administration, M.B.A. Non-Degree Seeking  
Economics, Non-Degree Seeking  
Executive M.B.A.  
Graduate Advanced Studies Business Certificate  
Health Care Administration, Non-Degree Seeking  
Healthcare Administration, M.S.  
Human Resource Management, M.S.  
Human Resource Management, Non-Degree Seeking  
Information Systems, M.S.  
Information Systems, Non-Degree Seeking  
Marketing Research, M.S.  
Marketing Research, Non-Degree Seeking  
Online Business Administration (Online M.B.A.)  
Professional Accounting, M.P.A.  
Professional Accounting, Non-Degree Seeking  
Quantitative Finance, M.S.  
Quantitative Finance, Non-Degree Seeking  
Tax Certificate  
Taxation, M.S.  
Taxation, Non-Degree Seeking*

**Martin Taylor**

*Accounting, Ph.D.*

**Dennis Veit**

*Human Resource Management, M.S.*

**Demetria Wilhite**

*Healthcare Administration, M.S.*

## Programs

Graduate programs include the Ph.D. in Business Administration and the Master of Business Administration at the college level and ten master's level specialized programs in the departments. All programs are listed below.

### Graduate Programs at the College Level

- **Master of Business Administration**
- **Executive Master of Business Administration**
- **Ph.D. in Business Administration**

### Specialized Programs at the Department Level

- **Master of Professional Accounting**
- **Master of Science in Accounting**
- **Master of Science in Taxation**
- **Master of Arts in Economics**
- **Master of Science in Health Care Administration**
- **Master of Science in Information Systems**
- **Master of Science in Marketing Research**
- **Master of Science in Human Resource Management**
- **Master of Science in Quantitative Finance**
- **Master of Science in Real Estate**



## **Mission and Philosophy**

### **History and Overview**

### **Accreditation**

### **Scholastic Activity and Research Interests of the Faculty**

### **Special Programs and Opportunities**

- **The Graduate Advanced Studies Program**
- **Special Students**
- **Dual Degree Programs**
- **Professional Programs in Accounting (PPIA)**
- **Fast Track Programs**
- **Facilitated Admission of Outstanding UT Arlington Undergraduates**
- **Internship Program**
- **Study Abroad/Exchange Programs**

### **Waivers and Transfer Credit**

## **Mission and Philosophy**

The College of Business strives to be a recognized contributor in the field of business education and research. It is our mission to build and maintain a quality educational environment, creating value for our constituencies.

Our achievement-focused programs produce quality graduates at all degree levels. These programs respond to changing needs and opportunities, generate and communicate new knowledge and ideas to benefit the scholarly, public and private sectors, and provide a wide range of intellectual and professional services locally, regionally, nationally and internationally.

Our philosophy can be summarized in the following objectives:

1. To discover and disseminate knowledge that, through its relevance and rigor, benefits our students, practitioners and other constituencies.
2. To continue to develop and provide instructional programs that meet the needs of our students: part-time, full-time, employed and international.
3. To maintain a rigorous and effective client-focused environment that capitalizes on our urban setting.
4. To continually improve all our academic programs, with special emphasis on master's programs, to effectively address the diversified needs of the Dallas/Fort Worth Metroplex.
5. To further our community interaction by offering off-campus courses, distance education and professional development seminars.
6. To enhance the visibility of the college and improve its financial strength through increased external funding.
7. To provide advisory services to academic, professional and other organizations.

## **History and Overview**

Since its origination in 1959, the College of Business has been one of the fastest growing business schools in the nation. This growth has mirrored the dynamic growth of the D/FW Metroplex as the college has worked hard to provide high quality educational programs. The college is organized into six academic departments: Accounting, Economics, Finance, Information Systems and Operations Management, Management, and Marketing. A total of 103 full-time equivalent faculty organize and conduct classes, including 88 with doctoral degrees from some of the top schools in

the nation. The college currently enrolls 5,500 students, of whom more than 1,500 are enrolled in 12 graduate business programs.

## Accreditation

The University of Texas at Arlington and its College of Business is fully accredited in business and accounting at both the undergraduate and graduate levels by the AACSB-International.

## Scholastic Activity and Research Interests of the Faculty

Many of the faculty have professional certifications and years of experience in the business world, including serving as consultants, expert witnesses, and in other professional capacities. They actively engage in research that enables them to be at the forefront of the discovery of new knowledge in their fields. All these activities allow them to bring professional experiences and new ideas into the classroom.

## Special Programs and Opportunities

### The Graduate Advanced Studies Program

This is a certificate program open to those holding a graduate degree in a business field. Applicants must meet normal MBA admissions requirements and complete 12-21 semester hours of graduate courses in a specified area. This is an excellent way for business professionals to update their business skills in advanced areas.

### Special Students

An applicant can gain admission as a special student in the College of Business, but he/she must meet the same admission requirements as those unconditionally admitted. In order to take masters and/or doctoral level courses in the College of Business, a student must be admitted as a graduate student.

### Dual Degree Programs

The college offers a rich array of dual degree opportunities that build synergistic skill sets that prepare students for more advanced career opportunities. While most dual degree programs include two graduate business degrees, the Professional Management Option in the MBA program allows professionals with undergraduate degrees in engineering, architecture, nursing, education, and urban affairs to complete a master's degree in that field along with the MBA. Dual degree programs allow students to earn two degrees with a substantial reduction in course requirements. The MBA Program also offers a special dual degree with Thunderbird School of Global Management.

### Professional Programs in Accounting (PPIA)

The PPIA program is designed to meet the needs of exceptional students. The Professional Program in Accounting allows a student to earn both a bachelor of business administration and master of science in accounting or taxation. Once accepted into this integrated program, students may enroll in graduate courses prior to completing their undergraduate degree. The program may be completed in approximately one less semester than required to earn separate bachelor's and master's degrees.

### Fast Track Programs

The Fast Track Program enables outstanding undergraduate UT Arlington Business students to satisfy degree requirements that will lead to a master's degree in Business Administration (MBA), Human Resource Management, Real Estate, Information Systems, or Economics while completing

their undergraduate studies. If admitted, students will be allowed to take select graduate courses that may be used to satisfy both bachelor's and master's degree requirements. Admitted students will be allowed to complete 6 to 9 hours of selected graduate coursework as an undergraduate student. A GPA of 3.0 on the graduate work is required to continue taking graduate courses. Any Fast Track student who completes the 6 to 9 hours of graduate coursework with grades of B or better will be automatically admitted to Graduate School. The student would then be awarded his or her bachelor's degree. The student will not be required to take the GMAT, complete the Graduate School Application, and will have the related application fees waived.

### **Facilitated Admission of Outstanding UT Arlington Undergraduates**

The following programs participate in the Facilitated Admissions program: Master of Business Administration, Master of Arts in Economics, Master of Science in Human Resource Management, Master of Science in Information Systems, Master of Science in Marketing Research and Master of Science in Real Estate. Students pursuing Facilitated Admission must demonstrate quantitative proficiency. For details on admission into the program please refer to UT Arlington's Graduate Catalog Special Admissions Programs under Admission Requirements and Procedures.

### **Internship Program**

Graduate students are encouraged to participate in internships to supplement and complement classroom education by providing valuable experience and training in their chosen area of expertise. Internships allow students to meet and interact with professionals in the work setting, identify and develop critical professional skills, clarify their own career goals and interests, and develop important contacts for future development. This internship program is open to all graduate students who have completed nine hours of graduate courses, are in good academic standing (GPA => 3.0), and have secured their advisor's approval for up to three hours of graduate credit. Interested students should ask for a fact sheet and an application in the Graduate Business Services Office. After gaining the advisor's approval, students will complete an application and meet with the appropriate departmental internship coordinator. Once an internship is obtained, the coordinator will monitor progress and assign a Pass/Fail grade.

### **Study Abroad/Exchange Programs**

The leaders for the 21st century will be deeply involved in business opportunities around the world. Study abroad/exchange programs are available to help students prepare in both curricular and extracurricular ways for these future international leadership roles. Students wishing to study abroad are encouraged to review the many opportunities contained in the Study Abroad Library in the International Office. Once a specific program is identified, students discuss the available courses with their advisor to ensure they meet degree requirements. Depending on their terms, study abroad/exchange programs may allow students to complete courses as resident credit or as transfer credit.

### **Waivers and Transfer Credit**

There are three types of required courses: deficiency, core and advanced. Applicants may have both deficiency and core courses waived without the requirement for a substitute course if they have completed a similar course, during the last 10 years, at a recognized college or university and received a "B" or better grade (3.0) in that course.\* Extensions to this 10-year limit may be granted for managers and executives who have completed educational activities to remain current or have extensive related experience.

A maximum of 9 hours of advanced coursework may be transferred in from other AACSB accredited schools if approved by the program advisor. Transfer of graduate courses from other universities will be considered on a case-by-case basis. All work submitted for transfer credit must have been completed no more than six years before completion of a graduate program at the University of Texas at Arlington.

\* Note: The University of Texas at Austin offer Business Foundations Programs (BFP) for non-

business majors that provide solid foundations in basic business concepts. BFP courses and courses from equivalent programs for non-business majors at other colleges/universities may not be used for course waiver credit.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
    - Curriculum and Instruction
    - Educational Leadership and Policy Studies
    - Kinesiology
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## College of Education and Health Professions

### Dean **Jeanne Gerlach**

Associate Dean **Carrie Ausbrooks**  
Associate Dean **Ann Cavallo**  
Associate Dean **Christopher Ray**

Web [www.uta.edu/coehp/](http://www.uta.edu/coehp/)  
Email [education@uta.edu](mailto:education@uta.edu)  
Phone 817.272.2591  
Fax 817.272.2530

500 Hammond Hall  
**701 Planetarium Pl**  
Box 19227, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Educational Curriculum & Instruction

[Joyce Myers](#)

#### Professor

[Ann Cavallo](#)  
[Mary Crow](#)  
[Christopher Kribs](#)  
[Andrew Milson](#)  
[Luis Rosado](#)  
[Marc Schwartz](#)  
[John Smith](#)

#### Associate Professor

[Joohee Lee](#)  
[Jon Leffingwell](#)  
[Jodi Tommerdahl](#)  
[Jiyoon Yoon](#)

#### Assistant Professor

[Carla Amaro-Jimenez](#)  
[Amber Brown](#)  
[Holly Hungerford-Kresser](#)  
[Evguenia Malaia](#)  
[Leisa Martin](#)  
[Mohan Pant](#)  
[Kathryn Pole](#)  
[Peggy Semingson](#)

#### Educational Leadership and Policy Studies

[Taryn Allen](#)

Casey Brown  
Bradley Davis  
Daniel B Saunders  
Maria Trache  
Yi Zhang

**Professor**

Jeanne Gerlach

**Associate Professor**

Carrie Ausbrooks  
James Hardy  
Rhonda McClellan  
Lewis Wasserman

**Assistant Professor**

Ifeoma Amah  
Barbara Tobolowsky

**Assistant Clinical Professor**

Ernest Johnson

**Senior Lecturer**

Kent Gardner

**Lecturer**

Harold Smith

**Special Assistant**

Ronald Caloss

**Kinesiology**

Robert Brothers  
Paul Fadel  
Mark Haykowsky  
Michael Nelson  
Zui Pan

**Professor**

John Buckwalter  
A Louise Fincher  
Barry McKeown  
Mark Ricard

**Associate Professor**

Paul McDonough  
Larry Nelson  
Cynthia Trowbridge  
Judy Wilson

**Assistant Professor**

Priscila Cacola  
Jean Hargreaves  
David Keller  
Rhonda Prisby  
Christopher Ray  
Jake Resch

**Assistant Clinical Professor**

Paul Krawietz

---

**Graduate Advisors**

**Robert Brothers**

*Athletic Training, M.S. Non Thesis*  
*Exercise Science, M.S.*  
*Exercise Science, Non-Degree Seeking*  
*Kinesiology BS to PHD-DB*  
*Kinesiology-PhD*

**Casey Brown**

*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Mary Crow**

*School Counselor Certificate*

**Caitlin Guerrero**

*Ed. Curriculum & Instruction, Special Student*

*Ed. Curriculum & Instruction, M.Ed.*

*Ed. Curriculum & Instruction, M.Ed. Non Thesis Mathematics*

*Ed. Curriculum & Instruction, M.Ed. Non Thesis Science*

*Ed. Curriculum & Instruction, M.Ed. Writing Focus*

**Ernest Johnson**

*Ed. Leadership & Policy Studies, M.Ed.*

**David Keller**

*Athletic Training, M.S. Non Thesis*

*Exercise Science, M.S.*

*Exercise Science, Non-Degree Seeking*

**Paul Krawietz**

*Athletic Training, M.S. Non Thesis*

**Teaira Little**

*Ed. Curriculum & Instruction, M.Ed.*

**Joyce Myers**

*Ed. Curriculum & Instruction, M.Ed.*

**Mark Ricard**

*Exercise Science, M.S.*

**Marc Schwartz**

*Mind, Brain and Education, M.Ed. Non Thesis*

**Barbara Tobolowsky**

*Ed. Leadership & Policy Studies (K-16), Ph.D.*

**Mission**

**History and Overview**

**Scholastic Activity and Research Interests of the Faculty**

- **Department of Curriculum and Instruction**
- **Department of Educational Leadership and Policy Studies**
- **Department of Kinesiology**

**Special Programs and Opportunities**

**Education Career Services**

- **Online Master's Degrees**
- **Certification and Advising Services**
- **Recommendation to the State Board for Educator Certification**
- **Office of Professional Development**
- **Office of Development and Leadership Gifts**
- **National Accreditation**

**College of Education and Health Professions Centers**

- **Southwest Center for Mind, Brain and Education**
- **Center for Educational Technology**
- **Center for K-16 Educational Policy and Research**
- **Center for Healthy Living and Longevity**

- [Center for Bilingual Education](#)
- [Center for Social Studies Education](#)
- [UTeach Arlington and the Center for Science Education](#)
- [School Counseling Certification](#)

#### Degrees and Certifications

- [Degrees](#)
- [Online Academic Partnership Degree Programs](#)
- [Educator Preparation Programs](#)
- [Supplemental Certification](#)

### Mission

The mission of the College of Education and Health Professions (COEHP) is to promote a collaborative culture of excellence in research, teaching, and service. The College is committed to fostering critical, creative thinkers prepared to engage meaningfully in a dynamic society.

### History and Overview

In 1979, The Center for Professional Teacher Education, now the College of Education and Health Professions, began offering coursework at the graduate level. In the late 1980s, a Master of Education and Teaching degree (M.Ed.T.) was approved. This degree served teachers who wanted the opportunity to extend their knowledge base in education and related fields with graduate coursework. The degree enabled students to combine graduate coursework in education with study in an academic discipline related to their teaching field or specialization. Its success led to the expansion of education offerings to include additional certifications in Reading and Educational Administration as well as supplemental certification in Bilingual Education (BIL), English as a Second Language (ESL), and Gifted and Talented (G/T).

As one of only a few Texas universities authorized to offer post baccalaureate teacher certification at the graduate level, the College of Education and Health Professions began offering graduate level teacher certification with an M.Ed.T. in the summer of 1998. With expansion of program offerings, the M.Ed.T. no longer met the needs of all degree-seeking students. In 1999, the College of Education and Health Professions added two new master's degree programs, a Master of Education (M.Ed.) in Educational Leadership and Policy Studies and a Master of Education (M.Ed.) in Curriculum and Instruction.

The M.Ed.T. is now offered exclusively to students seeking teacher certification (early childhood - grade 6, middle level, secondary and all level) at the graduate level. The M.Ed. in Educational Leadership and Policy Studies is available to students pursuing principal certification, principal certification emphasizing dual language, as well as higher education administration. The M.Ed. in Curriculum and Instruction (C&I) is for educators wanting to extend their knowledge in education and related fields, including science and mathematics. The M.Ed. in C&I also serves students wanting to earn a master's degree along with Reading Specialist Certificate and the Master Reading Teacher Certificate. The Department also offers the M.Ed. in C&I with science, mathematics, or social studies education as specialization areas. Supplemental certification in Bilingual Education and English as a Second Language may also be added to the M.Ed. in C&I. Superintendent certification is also available.

The Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies was first offered in the summer of 2007. With advancements in technology, many graduate courses are available via the Internet with additional courses being added each semester. The College of Education and Health Professions has an enrollment of more than 1,000 students with approximately 600 students pursuing graduate level degrees certificates.



## Scholarly Activity and Research Interests of the Faculty

College of Education and Health Professions faculty members strive to model the characteristics of the most proficient professional educators for all students aspiring to membership in the education and exercise, sport and health studies professions. Faculty members in the College of Education and Health Professions have consistently achieved recognition for their excellence in teaching in the University and beyond. They have received numerous honors, including the University of Texas System Board of Regents Outstanding Teaching Award, UT System Chancellor's Council Teaching Award, election to UT Arlington's Academy of Distinguished Teachers, and the Piper Professor award at the state level. They have also served as guest lecturers at universities across the country. In addition, numerous faculty members have received recognition for their scholarly publications and professional contributions.

The College of Education and Health Professions also values faculty scholarship for its potential impact on the increased effectiveness of teaching and learning in professional education preparation programs and in public and private school settings. Scholarly and research activities cover a variety of areas represented by the expertise of each individual faculty member.

Evidence of service to the College of Education and Health Professions, the University, the community and the practicing profession is also expected of the faculty. This includes service to local constituencies such as school districts, education service centers, parent-teacher groups, professional associations, and/or other agencies and organizations dedicated to the improvement of teaching and learning, as well as involvement in outreach programs, community events, civic leadership, and the promotion of alumni support and involvement. The extensive service activities of faculty members in the various departments have garnered additional awards from the University, the community, the state, and a variety of professional organizations.

### Department of Curriculum and Instruction

Curriculum & Instruction faculty scholarship focuses on a wide range of topics associated with teaching and learning. These include improving the effectiveness of instruction in various content areas; studying family support for learning; addressing issues associated with social sciences; using technology to enhance distance education instruction and student mentoring; online supplemental student teacher supervision; the effectiveness of service learning; the connections among brain physiology, cognition, and education; and effective practices in school counselor preparation. Funded projects include providing UT Arlington students as mentors to high school students for college success, math and science cohorts and camps, improving sustainability in post-secondary education, including college success strategies in educator preparation coursework. For more information about programs in Curriculum and Instruction in the College of Education and Health Professions, go to <http://www.uta.edu/coehp/curricandinstruct/>

### Department of Educational Leadership and Policy Studies

In the area of educational administration, research activities and publications have focused on school leadership trends, developing collaborations among the University, public, private and charter schools, fostering creativity in learning organizations, and studying school legal, policy, governance, and finance issues. Current focus is on transition research relative to students, faculty, and leadership across PK-16 school settings, between high school and beyond, and transitions between leadership levels. Other research examines how the media portrays educators and the education profession. See <http://www.uta.edu/coehp/educleadership/> for additional information about programs in Educational Leadership and Policy Studies in the College of Education and Health Professions.

### Department of Kinesiology

Faculty research interests and publications include dynamic regulation of blood pressure, pulmonary responses to exercise, postural control in elderly, the effects of therapeutic modalities on the treatment of athletic injuries, the effects of hyperbaric oxygen on the treatment of diseases, applied biomechanics, assessment and management of sports-related concussions, motor development, adapted sports, and sports pedagogy. For more information on Kinesiology

programs in the College of Education and Health Professions, see <http://www.uta.edu/coehp/kinesiology/>

## Special Programs and Opportunities

The College of Education and Health Professions offers a variety of special opportunities for learning and professional growth for graduate students. A variety of clinical field experiences, visiting authors and experts, membership in professional organizations, and specialized library resources are some of the special programs and opportunities that enrich students.

- Several graduate courses offer links to field experiences that greatly enrich the course content. This includes regular observation and participation in PK-12 classrooms and individualized administrative practicums for students seeking Principal Certification, and summer literacy clinics that bring children to campus to work with graduate students earning the Reading Specialist Certification.
- Graduate courses routinely host authors and experts in various areas to share their experiences and insights. Guests include outstanding professors from other area universities, award-winning educators, and others.
- Student organizations offer graduate students leadership opportunities.
- Student awards, scholarships, and graduate assistantships are available to graduate students who qualify.
- To support College of Education and Health Professions programs, the Library houses a Curriculum Collection and a Juvenile Collection for student use in conjunction with their education coursework.
- The Department of Kinesiology presents two lecture series each semester: the Anderson Sports Performance Lecture Series and the UTA/American College of Sports Medicine Lecture Series.
- The College of Education and Health Professions offers creative and flexible scheduling of graduate coursework to meet the needs of professional educators, including Saturday, weekend, interim and evening classes year-round.
- Distance learning via the Internet is available for an increasing number of courses.

## Education Career Services

[www.uta.edu/coehp/career](http://www.uta.edu/coehp/career), 817.272.2831, or [education.careerservices@uta.edu](mailto:education.careerservices@uta.edu).

The Education Career Services office assists education students who are seeking positions as teachers and administrators. Positive collaborative relationships with partners in the various school districts are important to the College, the districts and students. The annual College of Education and Health Professions Career Day is held in March and typically hosts over 50 school districts. Employers can list position vacancies as well as district job fairs with Education Career Services. In addition, Education Career Services offers career planning seminars, which include guidance on resume writing and developing strong interviewing and networking skills. The ultimate goal is to prepare UT Arlington students for the next step in their career development as professional educators and administrators.

## Online Master's Degrees

The College of Education and Health Professions offers graduate students convenience and quality with a master's degree in Curriculum and Instruction available entirely via the Internet. This program option includes cutting-edge graduate courses that can also lead to three Texas professional credentials: Reading Specialist, Master Reading Teacher Certifications and English-as-a-Second Language Certification. Students from as far away as New York, Georgia, and Nebraska as well as Americans teaching abroad have enrolled in online courses through this award-winning program. Contact: Dr. Joyce Myers, [rjem@uta.edu](mailto:rjem@uta.edu).

In addition, the College of Education and Health Professions offers graduate degree programs that are fully online through Academic Partnerships. These graduate programs lead to Master of Education degrees in Literacy Studies, Science Education, Mathematics Education, and Educational Leadership and Policy Studies, as well as a Superintendent Certificate. For more information on our online Academic Partnership programs, go to <http://stateu.com/uta/SearchPrograms.aspx?StudyArea=60>

## Certification and Advising Services

**Patty Motlagh**, Assistant Dean for Student Affairs

Certification and Advising Services helps students succeed by providing the information and support services needed to achieve their academic and career goals. The academic advisors are available to assist students in various stages of preparing for or furthering their careers as educators and school administrators.

Certification and Advising Services also provides information and advising regarding admission requirements and degree plan options, as well as the academic content areas, field-based experiences, state examinations, and application procedures needed to obtain teacher, principal, superintendent, and special program certification in Texas.

To schedule an advising appointment: 817.272.2956

For advising questions: [coehpadvising@uta.edu](mailto:coehpadvising@uta.edu)

## Recommendation to the State Board for Educator Certification

To be eligible for certification under all programs, a candidate must meet specific criteria set by the College of Education and Health Professions, the University, and the Texas Education Agency/State Board for Educator Certification. To be recommended to the Texas Education Agency/State Board for Educator Certification for initial teacher certification, a teacher candidate must have successfully completed the following:

Effective fall 2007, students must pass all appropriate state exams and apply for appropriate state certifications with the State Board for Educator Certification/Texas Education Agency within six months of the completion of their residency/practicum/program. If a student allows the six-month period to go by without passing all state exams and applying for certification, additional coursework and/or state exams will be required for recommendation for certification. Additional coursework will be determined by the appropriate Program Director in consultation with the faculty.

### Teacher Certification

Before you apply for certification as a teacher, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Conferred Bachelor's Degree (or higher);
2. Completed all courses on the certification plan;
3. Completed all appropriate TExES exams;
4. Completed Student Teaching or one year of approved internship on a probationary certificate.

If you do NOT meet these requirements, please wait to apply for certification until you do. If you do apply before these requirements are completed, your application will be automatically deleted. Apply at the State Board for Educator Certification (SBEC).

### Principal or Superintendent

Before you apply for certification as a Principal or Superintendent, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Conferred Master's Degree (or higher);

2. Completed all courses on the certification plan;
3. Completed all appropriate TExES exams;
4. Valid teaching certificate;
5. Two years of classroom teaching experience.

If you are a candidate who is applying for Principal or Superintendent certification, you must request that your school district mail a copy of your teacher service record indicating you taught for at least two years. Please request that your school district mail your teacher service record to the Assistant Dean for Student Affairs in the College of Education and Health Professions at UT Arlington. Then, apply to the State Board for Educator Certification (SBEC).

### **Master Reading Teacher**

If you are applying as a Master Reading Teacher, and are already certified as a Reading Specialist, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Bachelor's Degree (or higher);
2. Three years of teaching experience (service record required);
3. Completed course work.

If you are applying as a Master Reading Teacher, and are NOT already certified as a Reading Specialist, please make sure you have completed the following requirements (subject to verification by the Assistant Dean for Student Affairs):

1. Bachelor's Degree (or higher);
2. Completed course work;
3. Passed Master Reading Teacher TExES.

If you do NOT meet these requirements, please wait to apply for certification until you do. If you do not apply before these requirements are completed, your application will be automatically deleted.

If you are a candidate who is applying as a Master Reading Teacher, you must request your school district mail a copy of your teacher service record indicating you taught for three years. Please request your school district mail your teacher service record to the Assistant Dean for Student Affairs in the College of Education and Health Professions at UT Arlington. Then, apply to the State Board for Educator Certification (SBEC).

### **Office of Professional Development**

The Office of Professional Development supports partnerships between the College of Education and Health Professions and PK-16 schools and their communities. Partner public school districts and the College of Education and Health Professions collaborate to provide high-quality learning environments for future teachers. Prospective teacher candidates apply their knowledge of content and pedagogy during both a Field-Based Experience semester and a Student Teaching semester arranged through the Office of Professional Development. The Field-Based Experience semester gives teacher education candidates the opportunity to observe and interact with diverse student populations in a variety of formal and informal educational settings at partnership schools. During the Student Teaching semester, these pre-service teachers refine their teaching skills by working directly with students in classrooms, at designated public schools in the candidate's area of certification, guided by a cooperating mentor teacher and supervising university faculty. The Office of Professional Development coordinates the annual College of Education and Health Professions Career Day held in March and typically hosts over 50 school districts. Contact: Dr. Denise Collins, Director, Office of Professional Development, 817.272.7448, [dacollins@uta.edu](mailto:dacollins@uta.edu).

### **Office of Development and Leadership Gifts**

The Office of Development and Leadership Gifts plans, manages and directs the College of Education and Health Profession's comprehensive development program. This entails working with alumni, corporations, foundations, and friends to raise private gifts that will support and

enhance the College's strategic priorities for academic programs, student services, research efforts and outreach activities. The office works with the College of Education and Health Professions faculty and administration in the identification, cultivation, solicitation and stewardship of donors and prospects. Contact: Cathleen Anderson, Director of Development, 817.272.7451, [cfanderson@uta.edu](mailto:cfanderson@uta.edu).

### National Accreditation

The Office of the Associate Dean for Assessment provides leadership, direction, and oversight for the assessment and continuous improvement processes for national accreditation in the College of Education and Health Professions, including unit effectiveness and academic affairs as they relate to assessment and accreditation requirements. Contact: Dr. Carrie Y. Barron Ausbrooks, Associate Dean for Assessment, 871.272.5310, [causbrooks@uta.edu](mailto:causbrooks@uta.edu).

## Centers and Programs in the College of Education and Health Professions

### Southwest Center for Mind, Brain and Education

The mission of the Southwest Center for Mind, Brain and Education is to facilitate collaborative relationships among educators, policy makers, and researchers in the cognitive and developmental sciences. The Center seeks to identify and support promising research agendas at the intersection of mind, brain and education. Researchers, educators and policy makers will find a forum where ideas are welcomed and at the same time critically and rigorously examined. The Center invites individuals interested in how advances in neuroscience, genetics, and cognitive science can inform educational practice and leadership. The Center also seeks to advance educational research by recognizing, and profiting from, the role that practical experience plays in defining promising research directions. Contact: Dr. Marc Schwartz, Director, 817.272.5641, [schwarma@uta.edu](mailto:schwarma@uta.edu).

### Center for Educational Technology

The College of Education and Health Professions and UT Arlington are committed to ensuring that all learners have equitable opportunities to employ a variety of technological tools to enhance the learning process. Educational technology provides the opportunity to offer education anywhere, any time for everyone. The Center for Educational Technology addresses statewide technology initiatives for teachers and students in the State of Texas. The Center supports the faculty and students in their efforts to successfully use and understand the many new technology tools and strategies. The Center for Educational Technology also assists faculty in the development and implementation of interactive technologies, which increases the effectiveness of their pedagogy. Contact: Dr. Dana Arrowood, 817.272.7449, [arrowood@uta.edu](mailto:arrowood@uta.edu).

### Center for K-16 Education Policy and Research

The mission of the Center for K-16 Education Policy and Research, founded in the Department of Educational Leadership and Policy Studies at UT Arlington, is to produce and disseminate cutting-edge research on K-16 education and to inform education policy and practice. We are guided by the belief that educational leadership and opportunity are strengthened by research that takes systemic, integrated approaches to understanding persistent problems across the educational continuum. Contact: Dr. Daniel Saunders at [saunders@uta.edu](mailto:saunders@uta.edu).

### Center for Healthy Living and Longevity

The Department of Kinesiology's Center for Healthy Living and Longevity provides a multidisciplinary approach to improving health and functioning throughout the lifespan. Research and education initiatives focus on keeping senior citizens active, decreasing the incidence of sedentary-related diseases (diabetes, cardiovascular disease, osteoporosis, obesity, etc.), and the assessment and management of concussions. Contact: Dr. Christopher Ray, Director, 817.272.0082, [chrisray@uta.edu](mailto:chrisray@uta.edu).



## Center for Bilingual Education

Created in response to the growing number of English language learners, the Center for Bilingual Education strives to increase the number of qualified bilingual and ESL teachers in Texas. The Center prepares pre-service and in-service teachers to work with linguistically and culturally diverse student populations. The Center also provides technical support to school districts in their implementation of dual language, bilingual and ESL education programs. Additionally, the Center offers preparation for the certification examinations in the areas of the EC-6 Bilingual Generalist and the Bilingual Target Language Proficiency Test--Spanish. For information, contact Dr. Luis Rosado, Director, 817.272.7567, [rosado@uta.edu](mailto:rosado@uta.edu).

## Center for Social Studies Education

The goals of the Center for Social Studies Education are to advance social studies education research, improve social studies teacher preparation, and provide outreach to social studies learners and their teachers. The Center includes faculty from the College of Education and Health Professions, the College of Liberal Arts, and the College of Business. The Center faculty coordinate social studies teacher certification at UT Arlington, establish targeted partnerships to advance educational opportunities and excellence in social studies for under-represented and under-served populations, and facilitate collaborative relationships across colleges and universities for the advancement of P-16 teaching and learning in disciplines such as history, geography, economics, and political science. Contact: Mary Curtis, Director, [mary.curtis@uta.edu](mailto:mary.curtis@uta.edu) or <http://www.uta.edu/socialstudies>.

## UTeach Arlington and the Center for Science Education

UTeach Arlington is a science and mathematics secondary teacher preparation program jointly offered by the College of Science and the College of Education and Health Professions. It features early field experiences in PK-12 schools, guidance from Master Teachers, and scholarship and internship opportunities. UTeach courses will be added gradually over the next few years; therefore, the program is currently limited to students who will be graduating in spring 2014 or later. Students who are interested in mathematics or science education, but will be graduating prior to spring 2014, should pursue the existing secondary certification program offered through the **College of Education and Health Professions**. Secondary certifications include Composite Science, offered in the Departments of Biology and Earth and Environmental Sciences; Life Science, offered in the Department of Biology; Physical Science, offered in the Departments of Physics and Chemistry and Biochemistry; Chemistry, offered in the Department of Chemistry and Biochemistry; Physics/Mathematics, offered in the Department of Physics; and Mathematics, offered in the Department of Mathematics. Descriptions of these programs are provided in each department's section of this catalog. For information, contact: Dr. Ann Cavallo, Co-director, College of Education and Health Professions, [cavallo@uta.edu](mailto:cavallo@uta.edu); Dr. Greg Hale, Co-director, College of Science, [greghale@uta.edu](mailto:greghale@uta.edu); Dr. Ramon Lopez, Co-director, College of Science, [relopez@uta.edu](mailto:relopez@uta.edu); Erin Gonzales, UTeach Arlington Academic Advisor, 817.272.0784, [egonzales@uta.edu](mailto:egonzales@uta.edu); or visit <http://www.uta.edu/cos/uteach/index.html>.

## School Counseling Certification

The Counseling Certification Program at UT Arlington is designed for teachers who hold a master's degree in an Education-related area and who have at least two years of teaching experience. At the end of the required 15 hours of graduate coursework, successful candidates must pass the TExES certification examination for School Counselors. This will qualify them to hold positions as school counselors at any level (Pre-K through 12) in Texas schools. The six-course, 15-hour counseling program will be taught on campus during after-school hours. A six-hour supervised counseling practicum will take place in schools or on campus with school-age children. The practicum hours must be successfully accomplished in order for the candidate to be approved by UT Arlington to take the state examination. A school counselor needs to acquire the academic knowledge and skills necessary to do the job but must also have a personality, or disposition, appropriate for the helping professions. Candidates will be expected to complete the supervised practicum that will allow them the opportunity to demonstrate they can work successfully with

students and others in the educational environment. Admission requirements to the program include a completed master's degree from an accredited university in any approved area; transcripts of both undergraduate and graduate coursework; a minimum of two completed years of successful teaching either in public or private schools in any grade, K-12; an interview; and letters of recommendation from professionals. See the College of Education and Health Professions Web site at [www.uta.edu/coehp](http://www.uta.edu/coehp) or contact program director Dr. Mary Lynn Crow ([mlcrow@uta.edu](mailto:mlcrow@uta.edu)) for additional information about the program and an application.

## Degrees and Certifications

Graduate work in the College of Education and Health Professions at UT Arlington may lead to the following degrees and certifications:

### Degrees

- Master of Education in Teaching (M.Ed.T.) – Early Childhood - through Grade 6
- Master of Education in Teaching (M.Ed.T.) – Middle Level
- Master of Education in Teaching (M.Ed.T.) – Secondary Level
- Master of Education (M.Ed.) in Curriculum and Instruction
- Master of Education (M.Ed.) in Curriculum and Instruction – Literacy Studies
- Master of Education (M.Ed.) in Curriculum and Instruction – Reading Specialist
- Master of Education (M.Ed.) in Curriculum and Instruction – Science Education
- Master of Education (M.Ed.) in Curriculum and Instruction – Mathematics Education
- Master of Education (M.Ed.) in Curriculum and Instruction – Social Studies Education
- Master of Education (M.Ed.) in Mind, Brain and Education
- Master of Education (M.Ed.) in Educational Leadership and Policy Studies
- Master of Science (M.S.) in Exercise Science
- Doctor of Philosophy (Ph.D.) in K-16 Educational Leadership and Policy Studies

### Online Academic Partnership Degree Programs

- Master of Education (M.Ed.) in Curriculum and Instruction – Literacy Studies (AP)
- Master of Education (M.Ed.) in Curriculum and Instruction – Science Education (AP)
- Master of Education (M.Ed.) in Curriculum and Instruction – Mathematics Education (AP)
- Master of Education (M.Ed.) in Educational Leadership and Policy Studies (AP)

### Educator Preparation Programs

- Early Childhood-Grade 6 Teacher
- Early Childhood-Grade 6 Bilingual Teacher
- Middle Level Teacher (Grades 4-8)
- Secondary Teacher (Grades 8-12)
- Reading Specialist
- Master Reading Teacher
- Principal
- Superintendent (offered online through Academic Partnerships)

### Supplemental Certification

- Bilingual Education
- English as a Second Language
- School Counseling

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[Bioengineering](#)

[Civil Engineering](#)

[Computer Science and  
Engineering](#)

[Electrical Engineering](#)

[Industrial and  
Manufacturing Systems  
Engineering](#)

[Materials Science and  
Engineering](#)

[Mechanical & Aerospace  
Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## College of Engineering

**Dean Khosrow Behbehani**

**Dean Duane Dimos**

**Associate Dean Pranesh Aswath**

**Associate Dean Lynn Peterson**

Web [www.uta.edu/engineering/](http://www.uta.edu/engineering/)  
Email [info@engineering.uta.edu](mailto:info@engineering.uta.edu)  
Phone 817.272.2571  
Fax 817.272.2548

634 Nedderman Hall  
**416 S Yates St**  
Box 19019, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Bioengineering

[Christopher Chen](#)  
[Michael Cho](#)  
[Yi Hong](#)  
[Justyn Jaworski](#)  
[Juhyun Lee](#)  
[Jun Liao](#)

#### Professor

[Khosrow Behbehani](#)  
[Cheng-Jen Chuong](#)  
[Hanli Liu](#)  
[Liping Tang](#)

#### Associate Professor

[Digant Dave](#)  
[Kytai Nguyen](#)  
[Mario Romero-Ortega](#)

#### Assistant Professor

[Georgios Alexandrakis](#)  
[Young-Tae Kim](#)  
[Baohong Yuan](#)

#### Adjunct Professor

[Robert Eberhart](#)

#### Civil Engineering

[Zheng Fang](#)  
[S Ham](#)  
[Seyed Mohsen Shahandashti](#)  
[Yvette Weatherton](#)

**Professor and Chair**  
Seyedali Abolmaali

**Professor of Practice**  
Mohammad Najafi

**Professor**  
Siamak Ardekani  
Md Hossain  
Laureano Hoyos  
Anand Puppala  
James Williams  
Nur Yazdani

**Associate Professor**  
Shih-Ho Chao  
Andrew Kruzic  
Stephen Mattingly  
Stefan Romanoschi  
Melanie Sattler  
Dong-Jun Seo

**Assistant Professor**  
Hyeok Choi  
Xinbao Yu

**Senior Lecturer**  
Mostafa Ghandehari  
Srinivas Prabakar  
Seyed Mohammad Razavi

## **Computer Science and Engineering**

Sajib Datta  
Hong Jiang  
Song Jiang  
Taylor Johnson  
Jiang Ming  
Jia Rao

**Professor**  
Ishfaq Ahmad  
Upendranath Chakravarthy  
Gautam Das  
Sajal Das  
Chris Ding  
Ramez Elmasri  
Farhad Kamangar  
Mohan Kumar  
David Kung  
Fillia Makedon  
Lynn Peterson  
Roger Walker  
Gergely Zaruba

**Associate Professor**  
Vassilis Athitsos  
Hao Che  
Leonidas Fegaras  
Jean Gao  
Heng Huang  
Manfred Huber  
Yu Lei  
Chengkai Li  
Donggang Liu  
Yonghe Liu  
Bob Weems  
Matthew Wright

**Assistant Professor**  
Christoph Csallner  
Junzhou Huang

[Gian-Luca Mariottini](#)

**Senior Lecturer**

[Darin Brezeale](#)  
[Bahram Khalili](#)  
[David Levine](#)  
[James Mike O'Dell](#)

**Electrical Engineering**

[R Stephen Gibbs](#)  
[Henry Kearny](#)  
[Ramtin Madani](#)  
[Yuze Sun](#)  
[Yan Wan](#)

**Professor**

[Kambiz Alavi](#)  
[Jonathan Bredow](#)  
[Donald Butler](#)  
[Ronald Carter](#)  
[Zeynep Celik-Butler](#)  
[Jung-Chih Chiao](#)  
[Venkat Devarajan](#)  
[George V Kondraske](#)  
[Wei-Jen Lee](#)  
[Frank L Lewis](#)  
[Qilian Liang](#)  
[Robert Magnusson](#)  
[Michael T Manry](#)  
[Kamisetty R Rao](#)  
[Harry Stephanou](#)

**Associate Professor**

[W Alan Davis](#)  
[William E Dillon](#)  
[Sungyong Jung](#)  
[Soontorn Orintara](#)  
[Dan Popa](#)  
[Saibun Tjuatja](#)  
[Michael Vasilyev](#)  
[Weidong Zhou](#)

**Assistant Professor**

[Ali Davoudi](#)  
[Samir Iqbal](#)  
[Ioannis Schizas](#)  
[David A Wetz](#)

**Senior Lecturer**

[Rasool Kenarangui](#)  
[Howard Russell](#)

**Industrial and Manufacturing Systems Engineering**

[Paul Componation](#)  
[Shouyi Wang](#)

**Professor**

[Victoria Chen](#)  
[Herbert Corley](#)  
[Donald Liles](#)  
[John Priest](#)

**Associate Professor**

[Brian Huff](#)  
[Sheik Imrhan](#)  
[Erick Jones](#)  
[Jamie Rogers](#)  
[Jay Rosenberger](#)

**Assistant Professor**

[Susan Ferreira](#)

Li Zeng

**Senior Lecturer**  
Bonnie Boardman

## Materials Science and Engineering

Duane Dimos  
Kyungsuk Yum

**Professor**  
Pranesh Aswath  
Ronald Eisenbaumer  
Choong-Un Kim  
Efstathios Meletis

**Associate Professor**  
Yaowu Hao  
Seong Jin Koh

**Assistant Professor**  
Fuqiang Liu

**Research Professor**  
Nai Yuen Chen  
Wiley P Kirk  
Harry Fred Tibbals

## Mechanical & Aerospace Engineering

Endel larve  
Baxter Mullins  
Flora Pinegar  
Sunand Santhanagopalan  
Robert Taylor

**Professor**  
Dereje Agonafer  
Erian Armanios  
Wen Chan  
Abdolhossein Haji-Sheikh  
David Hullender  
Kent Lawrence  
Frank Lu  
Cheng Luo  
Seiichi Nomura  
Bo Wang  
Donald Wilson  
Robert Woods  
Seung You

**Associate Professor**  
Bernd Chudoba  
Dragos Dancila  
Brian Dennis  
Atilla Dogan  
Haiying Huang  
Andrew Makeev  
Desheng Meng  
Panayiotis Shiakolas  
Kamesh Subbarao  
Albert Tong

**Assistant Professor**  
Ashfaq Adnan  
Alan Bowling  
Robert Harris  
Ankur Jain  
Daejong Kim  
Luca Maddalena  
Luca Massa  
Hyejin Moon  
Donghyun Shin

**Bo Yang**

**Professor Emeritus**

**Roger Goolsby**

**Senior Lecturer**

**Zhen Han**

**Ratan Kumar**

**Nancy Michael**

**Clarence Wimberly**

**Lecturer**

**Cecil Harris**

---

**Graduate Advisors**

**Natalie Burden**

*Materials Science and Engineering, B.S. to Ph.D.*

*Materials Science and Engineering, Ph.D.*

**Sajib Datta**

*Computer Engineering, B.S. to Ph.D.*

*Computer Engineering, M.S.*

*Computer Engineering, Ph.D.*

*Computer Science, B.S. to Ph.D.*

*Computer Science, M.S.*

*Computer Science Unmanned Vehicle Systems Certificate*

*Software Engineering, M.SWEN.*

**W Alan Davis**

*Electrical Engineering, M.Engr. Non Thesis*

*Electrical Engineering, M.S.*

*Electrical Engineering, Ph.D.*

**William E Dillon**

*Electrical Engineering, M.S.*

*Electrical Engineering, Ph.D.*

**Atilla Dogan**

*Aerospace Engineering, B.S. to Ph.D.*

*Aerospace Engineering, M.Engr.*

*Aerospace Engineering, M.S.*

*Aerospace Engineering, Ph.D.*

**Ramez Elmasri**

*Computer Engineering, B.S. to Ph.D.*

*Computer Engineering, M.S.*

*Computer Engineering, Ph.D.*

*Computer Science, B.S. to Ph.D.*

*Computer Science, M.S.*

*Computer Science, Ph.D.*

*Software Engineering, M.SWEN.*

**Kristiana Hamedi**

*Civil Engineering, M.Engr.*

*Civil Engineering, M.Engr. Fast Track*

*Civil Engineering, M.S.*

*Civil Engineering, Non-Degree Seeking*

*Civil Engineering, Ph.D.*

**Sheik Imrhan**

*Industrial Engineering, M.Engr.*

*Industrial Engineering, M.S.*

*Industrial Engineering, Ph.D.*

**Erick Jones**

*Logistics, M.S.*

**Bahram Khalili**

*Computer Engineering, B.S. to Ph.D.*

*Computer Engineering, M.S.*

*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Seong Jin Koh**

*Materials Science and Engineering, M.Engr.*  
*Materials Science and Engineering, M.S.*  
*Materials Science and Engineering, Ph.D.*

**Donald Liles**

*Engineering Management, M.S.*  
*Systems Engineering, M.S.*

**Kytai Nguyen**

*Biomedical Engineering, M.S.*  
*Biomedical Engineering, Ph.D.*

**Seiichi Nomura**

*Mechanical Engineering, M.Engr.*  
*Mechanical Engineering, M.S.*  
*Mechanical Engineering, Ph.D.*

**James Mike O'Dell**

*Computer Engineering, B.S. to Ph.D.*  
*Computer Engineering, M.S.*  
*Computer Engineering, Ph.D.*  
*Computer Science, B.S. to Ph.D.*  
*Computer Science, M.S.*  
*Computer Science, Ph.D.*  
*Software Engineering, M.SWEN.*

**Flora Pinegar**

*Aerospace Engineering, B.S. to Ph.D.*  
*Aerospace Engineering, Ph.D.*  
*Mechanical Engineering, B.S. to Ph.D.*  
*Mechanical Engineering, Ph.D.*

**Sara Ridenour**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.Engr. Fast Track*  
*Civil Engineering, M.S.*  
*Civil Engineering, Non-Degree Seeking*  
*Civil Engineering, Ph.D.*  
*Master of Construction Management*

**Melanie Sattler**

*Civil Engineering, M.Engr.*  
*Civil Engineering, M.S.*  
*Civil Engineering, Ph.D.*

**Liping Tang**

*Biomedical Engineering, B.S. to Ph.D.*  
*Biomedical Engineering, Ph.D.*

**Mission**

**History and Overview**

**Research Interests of the Faculty**

**Programs**

**Mission**

The mission of the College of Engineering is to meet the needs of industry and society by:

- Producing highly competent graduates at the baccalaureate, master's and doctoral levels,

- Performing state-of-the-art research in the disciplines comprising the diverse fields of engineering, and
- Providing service to the community and engineering profession through outreach programs, involvement in professional societies, consulting, and interaction with industry and government.

## History and Overview

The College of Engineering at The University of Texas at Arlington is the third largest engineering college in Texas, and is the largest and most comprehensive in North Central Texas, with over 3,300 students and 150 faculty members in eight disciplines. Additionally, there are more than 20 research centers producing more than \$20 million in research for government and private industry.

The engineering program at UT Arlington evolved from a two-year program that was established at North Texas Agricultural College during the 1930s and 1940s. North Texas Agricultural College became Arlington State College, and in 1959 approval was given to begin a four-year engineering program. In 1965, Arlington State College joined The University of Texas System as The University of Texas at Arlington, and the first master's degree program in engineering was approved. The first Ph.D. program in engineering was added in 1969. Construction of the Engineering Laboratory Building in 1977, the Engineering Annex in 1980, the Automation & Robotics Research Institute (ARRI) in 1987, Nedderman Hall in 1988, the Nanotechnology Research and Teaching Facility in 2001 and the Engineering Office Buildings East and West in 2003 provided additional classroom and research laboratory space for the continued growth of the College of Engineering. Currently, four buildings are in the construction or planning stages: an Engineering Research Building adjoining the main engineering buildings, an expansion of the Engineering Laboratory Building, the Civil Engineering Laboratory Building, and the Center for Structural Engineering Research.

The college is a leader in distance education, providing a convenient way for working engineers to pursue a master's degree. Starting with TAGER, a dedicated microwave communications link in 1975, courses are now distributed on the Internet in streaming video, providing a very convenient access to students. More information can be found at [www.uta.edu/engineering/distance/](http://www.uta.edu/engineering/distance/).

## Research Interests of the Faculty

There is an excellent equipment infrastructure to support research in:

- nanotechnology
- microelectronics and MEMS
- robotics and manufacturing
- materials and their characterization
- pervasive computing
- intelligent systems
- software engineering
- networking
- embedded systems
- database systems
- multimedia systems
- bioinformatics
- information technology
- security
- transportation systems
- hydrology and hydraulics systems
- geotechnical engineering
- environmental engineering

- solid mechanics
- structural analysis
- aerodynamics
- flight mechanics and control
- electronic packaging
- energy systems
- optics
- statistics and optimizations
- and many more.

There are two formal research centers, the Automation & Robotics Research Institute (ARRI) and the Nanotechnology Research and Teaching Facility (NRTF), with the directors reporting to the Dean of Engineering.

Many College of Engineering faculty members collaborate with professors and researchers in other colleges at UT Arlington and other institutions in the state, around the U.S., and around the world. Therefore, for those interested in doing research as part of graduate training, there are many opportunities to work on research projects that are either within the home department or interdisciplinary with other departments.

## Programs

Graduate work in engineering at UT Arlington may lead to the master of science or doctor of philosophy in the following programs:

- **Biomedical Engineering**
- **Civil Engineering**
- **Computer Science and Engineering**
- **Electrical Engineering**
- **Industrial Engineering**
- **Materials Science and Engineering**
- **Mechanical & Aerospace Engineering**

Master's degree programs are available in:

- Logistics
- Engineering Management
- Software Engineering
- Systems Engineering

Graduate work leading to a practice-oriented master's degree usually requires a design project, report, internship or additional coursework. Details are given in the individual program descriptions that follow.

The program in Materials Science and Engineering (MSE) is under the auspices of both the College of Engineering and the College of Science. Biomedical Engineering is a joint program of the UT Arlington Bioengineering Department in association with The University of Texas Southwestern Medical Center at Dallas. The Master of Science in Logistics and Master of Science in Engineering Management are offered in partnership with the College of Business Administration. Descriptions of these programs are in the Interdepartmental and Intercampus Programs section of this catalog.

Please visit the graduate program Web site [www.uta.edu/engineering/graduate](http://www.uta.edu/engineering/graduate) for detailed information.



Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

Home

Degree Requirements

Fields of Study

School of Architecture

College of Business

College of Education and  
Health Professions

College of Engineering

College of Liberal Arts

Art + Art History

Communication

Criminology & Criminal  
Justice

English

History

Humanities

Modern Languages

Linguistics

Music

Philosophy & Humanities

Political Science

Sociology and  
Anthropology

Theatre Arts

College of Nursing

College of Science

School of Social Work

School of Urban and Public  
Affairs

Admissions Requirements &  
Procedures

General Information &  
Regulations

Graduate Calendar

Graduate Faculty

Table of Contents

Index

## College of Liberal Arts

### Dean **Beth Wright**

Associate Dean **Elisabeth Cawthon**

Associate Dean **Kevin Gustafson**

Associate Dean **Les Riding-In**

Associate Dean **Kimberly van Noort**

Web [www.uta.edu/libarts/](http://www.uta.edu/libarts/)

Email [liberalarts@uta.edu](mailto:liberalarts@uta.edu)

Phone 817.272.3291

Fax 817.272.3255

210 University Hall

**601 S Nedderman Dr**

Box 19617, Arlington, Texas 76019, USA

### Graduate Faculty

#### Art + Art History

##### Professor

**Robert Hower**

**Benito Huerta Lozano**

**David Keens**

**Kenda North**

**Nancy Palmeri**

**Mary Vaccaro**

##### Associate Professor

**Lisa Graham**

**Marilyn Jolly**

**R Leighton McWilliams**

**Andrew Ortiz**

**Jack Plummer**

**Barton Weiss**

**Nicholas Wood**

##### Assistant Professor

**Amanda Alexander**

**Melia Belli**

**Zenas Ikeda**

**Darryl Lauster**

**Benjamin Lima**

**Dwain Ya'Ke Smith**

**Salvatore Terrasi**

##### Special Member

**Bryan Florentin**

**Sedrick Huckaby**

**Stephen Laphisophon**

## Communication

### Associate Professor

Thomas Christie  
Andrew Clark  
Tom Ingram  
Chyng-Yang Jang  
Charla Markham Shaw  
Eronini Megwa

### Assistant Professor

Karishma Chatterjee  
Dustin Harp  
Erika Pribanic-Smith  
Chunke Su  
Mark Tremayne  
Shelley Wigley

### Senior Lecturer

Brian Horton

## Criminology & Criminal Justice

### Professor

Alejandro Del Carmen

### Associate Professor

Robert Bing

### Assistant Professor

Jaya Davis  
Seokjin Jeong  
Tony Love  
John Rodriguez

### Visiting Assistant Professor

Christopher Copeland

### Senior Lecturer

Randall Butler  
Karel Carpenter  
Rhonda Dobbs  
Patricia Eddings  
Kristy Smith  
Royce West

## English

Bruce Krajewski

### Professor

Stacy Alaimo  
Timothy Morris  
Kenneth Roemer

### Associate Professor

Luanne Frank  
Kevin Gustafson  
Desiree Henderson  
Penelope Ingram  
Neill Matheson  
Kevin Porter  
Timothy Richardson  
Johanna Smith  
Jacqueline Stodnick  
Amy Tigner

### Assistant Professor

William Arce  
James Warren  
Yuejiao Zhang

## History

Paul Conrad  
David Lafevor  
Scott Palmer

**Professor**

Thomas Adam  
Imre Demhardt  
Robert Fairbanks  
Sam Haynes  
Donald Kyle  
Christopher Morris  
Stanley Palmer  
Jerry Rodnitzky

**Associate Professor**

Elisabeth Cawthon  
Stephanie Cole  
William Dulaney  
John Garrigus  
Joyce Goldberg  
Alusine Jalloh  
Stephen Maizlish  
David Narrett  
Steven Reinhardt  
Gerald Saxon  
Roberto Trevino

**Assistant Professor**

Patryk Babiracki  
Oliver Bateman  
Sarah Rose  
Cristina Salinas  
Kenyon Zimmer

**Professor Emeritus**

George Green  
Kenneth Philp  
Douglas Richmond

**Linguistics**

Suwon Yoon

**Professor**

Colleen Fitzgerald  
David Silva

**Associate Professor**

Laurel Stvan

**Assistant Professor**

Cynthia Kilpatrick  
Joseph Sabbagh  
Jeffrey Witzel

**Professor Emeritus**

Jerold Edmondson

**Senior Lecturer**

Naoko Witzel

**Military Science**

Lora Rimmer

**Modern Languages**

**Associate Professor**

Jinny Choi  
Christopher Conway  
Raymond Elliott  
Aimee Israel-Pelletier

Lana Rings  
Ignacio Ruiz-Perez  
Antoinette Sol  
Kimberly van Noort

**Assistant Professor**

Amy Austin  
Sonia Kania  
Christopher Stewart  
Sonja Watson

**Music**

Sarah Frisof  
David Grogan

**Department Chair**

Rick Bogard

**Professor**

John Burton  
Linton Powell  
Jing Tam

**Associate Professor**

Daniel Cavanagh  
George Chave  
Sergio Espinosa  
Graham Hunt  
Timothy Ishii  
Carol Jessup  
Karen Kenaston-French  
Soo Kim  
Diane Lange  
John Solomons  
Douglas Stotter  
Michael Varner  
Martha Walvoord

**Assistant Professor**

Sean Atkinson  
Young-Hyun Cho  
Clifton Evans  
Christopher Pool

**Philosophy and Humanities**

**Professor**

Susan Hekman

**Associate Professor**

Lewis Baker  
Keith Burgess-Jackson  
Charles Chiasson  
Charles Nussbaum  
Harry Reeder  
Kenneth Williford

**Assistant Professor**

Miriam Byrd

**Political Science**

**Senior Vice Provost**

Michael Moore

**Professor**

Mark Cichock  
Victoria Farrar-Myers  
Jose Gutierrez  
Susan Hekman  
Joseph Ignagni  
Thomas Marshall

**Dale Story**

**Associate Professor**

**Brent Boyea**  
**Jill Clark**  
**Rebecca Deen**  
**Allan Saxe**

**Assistant Professor**

**Aytem Bayram**  
**Heidi Hardt**  
**Brent Sasley**  
**Daniel Sledge**

**Associate Adjunct Professor**

**Thomas Little**

**Professor Emeritus**

**Allan Butcher**

**Senior Lecturer**

**Larry Carter**

**Sociology and Anthropology**

**Professor**

**Ben Agger**  
**Beth Anne Shelton**  
**Shelley Smith**  
**Robert Young**

**Associate Professor**

**Susan Baker**  
**Dana Dunn**  
**Heather Jacobson**  
**Robert Kunovich**  
**Linda Rouse**  
**Christian Zloliniski**

**Assistant Professor**

**Krystal Beamon**  
**Naomi Cleghorn**  
**Chunping Han**  
**Ritu Khanduri**  
**Jason Shelton**  
**Amy Speier**

**Professor Emeritus**

**Joseph Bastien**  
**Raymond Eve**

**Lecturer**

**Josephine Ryan**

**Theatre Arts**

**Professor**

**Andrew Gaupp**  
**Kim Lafontaine**

**Associate Professor**

**Joe Chapa**  
**Joseph Kongevick**  
**Dennis Maher**

---

**Graduate Advisors**

**Amy Austin**

*Modern Languages, French Certificate*  
*Modern Languages, M.A. (Spanish or French Concentration)*  
*Modern Languages, Non-Degree Seeking*

*Modern Languages, Spanish Certificate*

**Thomas Christie**  
*Communications, M.A.*

**Stephanie Cole**  
*History, M.A.*

**Rhonda Dobbs**  
*Criminology and Criminal Justice, M.A.*

**Clifton Evans**  
*Music Performance, M.M. Thesis*  
*Music, M.M.*

**John Garrigus**  
*Transatlantic History, Ph.D.*

**Heather Jacobson**  
*Sociology, M.A. Thesis*

**Cynthia Kilpatrick**  
*Teaching English to Speakers of Other Languages, M.A.*

**Nancy Palmeri**  
*Art, M.F.A.*

**John Rodriguez**  
*Criminology and Criminal Justice, M.A.*

**Josephine Ryan**  
*Anthropology, M.A.*

**Joseph Sabbagh**  
*Linguistics, M.A.*

**Brent Sasley**  
*Political Science, M.A.*

**Amy Tigner**  
*English, M.A.*  
*English, Non-Degree Seeking*  
*English, Ph.D.*

**Jeffrey Witzel**  
*Linguistics, Ph.D.*

**Kenyon Zimmer**  
*Transatlantic History, B.A. to Ph.D.*  
*Transatlantic History, Ph.D.*

## **Mission and Philosophy**

### **History and Overview**

### **Scholastic Activity and Research Interests of the Faculty**

### **Special Programs and Opportunities**

- **Lecture Series, Seminars and Conferences**
- **Publications**
- **Centers**
- **Other Resources**

### **Programs**

## **Mission and Philosophy**

The mission of the College of Liberal Arts is to provide a learning community wherein students are provided both broad-based and specialized education and to vitalize the educational process by creating and transmitting knowledge through research, scholarship and creative activity.

The college is characterized by a diversity of intellectual styles and interests. Departments and

programs cluster into social sciences, humanities and fine arts. Liberal Arts disciplines address the rich meanings of human experience and expression and liberate the imagination by producing knowledge and creating beauty.

The faculty and administration of the college address the traditional objectives of liberal arts in the University: 1) to develop the tools for analysis, appreciation and communication; for written and oral expression; for comprehension, interpretation, and analysis of textual material; for analytic reasoning and scientific method; and for appreciation of aesthetic experience; 2) to prepare students for a range of careers in academia and public and private sector organizations. Graduates of the college contribute to the region, the state and the nation as college and university professors, elementary and secondary teachers, legal professionals, in government agencies, social services, international business and industry, media and advertising, health and recreation, and cultural and entertainment industries; and 3) to promote understanding and critical evaluation of the cultural milieu the attitudes and the ideas that shape institutions and strategies in societies.

Accomplishing these objectives culminates in students reaping the creative, utilitarian and life enriching benefits of a liberal arts education.

## History and Overview

The University of Texas at Arlington's College of Liberal Arts acquired its first graduate degrees in 1968, with the establishment of M.A. programs in English and History. Since that time, the number of M.A. programs offered has expanded to 13. In 1974, the college established its first Ph.D. level program, Humanities. The Humanities Program was reorganized in 1997 and replaced by three new Ph.D. level programs in English (Literature and Rhetoric/Composition tracks), History (transatlantic) and Linguistics. A joint Ph.D. in Philosophy with the University of North Texas was approved in 2005.

## Scholastic Activity and Research Interests of the Faculty

The faculty in the College of Liberal Arts excel in their roles as educators, creative scholars and researchers. Eight faculty members have won the Academy of Distinguished Teachers Award, and eight faculty are Chancellor's Teaching Award recipients. Two of our faculty have won the prestigious Piper Award from the UT System. Several faculty from a variety of departments in the college also have won the University Research Achievement Award. Numerous faculty have received recognition for their published scholarship, including Pulitzer Prize nominations and the *Choice* magazine Outstanding Academic Book Award. The Jenkins and Virginia Garrett Endowed Chair in Greater Southwestern Studies and the History of Cartography was created in 1995 and is currently held by David Buisseret, Ph.D. Five faculty from the College of Liberal Arts have been selected to be members of the Academy of Distinguished Scholars.

The scholarly activities and research of the faculty cover a range of areas represented within the 13 disciplines in the college. History faculty research interests center on transatlantic broadly defined, and research specializations of faculty include southern, western and southwestern history, frontier development, women and gender, urban and labor and public history. English faculty research strengths lie in the areas of American, British and comparative literatures; and rhetoric, composition and criticism. Linguistics faculty specialize in field linguistics. Numerous faculty throughout the college also conduct research on gender and women's issues. Anthropology faculty members recently became the first foreign archaeological team to excavate in Albania in more than 50 years.

## Special Programs and Opportunities

The College of Liberal Arts provides a number of special programs and opportunities for graduate students. College lecture series and seminars, conferences, publications, academic centers, library collections and an art gallery provide a mosaic of events and resources that enrich the university community.

### Lecture Series, Seminars and Conferences:

- Each year the English Department sponsors the Hermann Lecture series, which brings



scholars from UT Arlington and other universities together for discussions and master classes on an issue of general theoretical interest.

- The History Department presents the Walter Prescott Webb Memorial Lectures each March. Nationally prominent speakers make presentations on an annual topic, followed by a dinner in the University Center and a keynote address.
- Graduate students in Linguistics sponsor a Linguistics Conference each year. This conference provides an opportunity for students to begin their professional careers by organizing the sessions, reviewing paper abstracts and presenting their own research.
- The Women's Studies Program organizes an annual, month-long Women's History Month Lecture Series. Exhibits and film/video presentations also are included as part of the events scheduled during the month of April. The Women's Studies Brown Bag Colloquium is another forum for scholars, primarily UT Arlington faculty, to share their research with the University community.
- The Criminal Justice and Criminology Program sponsors a Brown Bag Lecture Series every spring semester, and students have the opportunity to receive credit for practicums.
- The Philosophy Lecture Series is sponsored by the Department of Philosophy and Humanities, together with the Philosophy Club at UT Arlington. Each semester, a philosopher of national or international reputation from another university is invited to the UT Arlington campus to lecture on a topic of current philosophical interest.
- The Department of Political Science hosts the annual Haggard Lectures, bringing in nationally and internationally known scholars in the field.
- Each spring the Department of Sociology and Anthropology hosts the annual Termini Lecture Series in Anthropology, which brings a nationally prominent anthropologist to campus to speak on topics of general interest. The speaker typically presents a public lecture and a more informal presentation, primarily for the benefit of students, on a related topic.
- The Department of History hosts an annual student conference for the graduate students.

### Publications

- The History Department publishes an annual volume comprised of Webb Lecture Series papers.
- The English Department houses the online literary review "Znine" and the online journal "Pretext."
- The Center for Theory houses the online journal "Fast Capitalism."
- Individual departments/programs publish newsletters which provide news and information about and for students, faculty and alumni.

### Centers

The College of Liberal Arts houses numerous centers designed to promote scholarship, research and teaching. These centers organize conferences, lecture series and workshops and provide a conduit for making faculty expertise available to the community. College of Liberal Arts centers are listed below and described in the Facilities for Advanced Studies and Research section of this catalog.

The Center for Criminal Justice Research and Training  
The Center for Greater Southwestern Studies and the History of Cartography  
The Center for Mexican American Studies  
The Center for Post-Soviet and East European Studies  
The Center for Social Research  
The Center for Theory  
The English Language Institute  
The International Linguistics Center  
The Language Acquisition Center

## The Women and Minorities Research and Resource Center

### Other Resources

- In support of the history M.A. and Ph.D. programs, the UT Arlington Library Special Collections houses the Jenkins Garrett Library of Texana and Mexican War historical material and the Cartographic History Library. In addition, Special Collections has material on UT Arlington's history since 1895, the history of organized labor in Texas and the Southwest, and Yucatan and Honduran archival materials.
- The Gallery at UT Arlington presents a full program of major exhibitions in its 4,000-square-foot gallery, including lectures, symposia, screenings and publications. The Gallery's program demonstrates the complementary roles of visual and verbal literacy.
- The Department of Modern Languages has a Language Laboratory which produces innovative software in language learning.
- The Department of Music offers laboratory facilities and the Fine Arts Library contains an extensive collection of recordings and publications relating to musical performance and theory.
- The Anthropology Program has a biological anthropology lab, and offers an archaeological field school every summer where students can gain academic credit for learning and applying archaeological field methods.
- Numerous student organizations exist on campus to provide students with the opportunity to interact with peers in their disciplines. These student groups include interdisciplinary organizations for graduate students interested in Medieval Studies and Rhetoric; and honor societies for Anthropology, Communication, Criminal Justice, English, History, Political Science, and Sociology, as well as specialized interest groups.
- Student awards, scholarships and teaching and research assistantships are available in many College of Liberal Arts departments and programs. Each spring the History Department awards an outstanding graduate student the Wolfskill Prize, a cash award and plaque representing superior attainment in history studies. The English Language Institute, a part of the Program in Linguistics, provides graduate teaching assistantships. A McNair Fellowship is sponsored by the Office of the Dean.
- The Dean of College also awards funds for research travel and for travel to conferences for presentation of original research.

### Programs

The College of Liberal Arts offers the following graduate degree programs:

Anthropology, M.A.  
Communication, M.A.  
Criminology and Criminal Justice, M.A.  
English, M.A., Ph.D.  
History, M.A.; Transatlantic History, Ph.D.  
Humanities, M.A.  
Linguistics, M.A., Ph.D.; TESOL, M.A.  
Modern Languages (French and Spanish), M.A.  
Music Education, M.M.  
Philosophy, joint Ph.D. with UNT.  
Political Science, M.A.; Public Administration, M.PA.  
Sociology, M.A.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[Nursing - MSN, DNP, &  
PhD](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## College of Nursing

**Dean Elizabeth Poster**

**Associate Dean Jennifer Gray**  
**Associate Dean Mary Schira**  
**Associate Dean Michael Young**

Web [www.uta.edu/nursing/](http://www.uta.edu/nursing/)

Email [nursing@uta.edu](mailto:nursing@uta.edu)

Phone 817.272.2776

Fax 817.272.5006

669 Pickard Hall  
**411 S Nedderman Dr**  
Box 19407, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Nursing

**Associate Dean**  
**Mary Schira**

#### Clinical Assistant Professor

**Susan Baxley**  
**Deborah Behan**  
**Susan Carlson**  
**Daisha Cipher**  
**Chad Collom**  
**Jeannette Crenshaw**  
**Elizabeth Ellis**  
**Beverly Ewing**  
**Christopher Fowler**  
**John Gonzalez**  
**Linda Grande**  
**Nancy Handy**  
**Valerie Hart**  
**Lauri John**  
**Carol Lieser**  
**Jacqueline Michael**  
**Mary Jo Perley**  
**Cynthia Plonien**  
**Lisa Taylor**  
**Phyllis Wood**

#### Clinical Associate Professor

**Phyllis Adams**  
**Joy Baker**

**Interim Dean, College of Nursing; Associate Dean, Dept. MSN Administration, Education, and PhD Programs; Professor**  
**Jennifer Gray**

**Interim Director, Doctor of Nursing Practice, Clinical Assistant Professor**  
**Sharolyn Dihigo**

**Interim Director, MSN Education Program; Clinical Instructor**  
**Marie Lindley**

**Professor**  
**Mary Lou Bond**  
**Carolyn Cason**  
**Judy Leflore**  
**Mary Mancini**

**Associate Professor**  
**Cheryl Anderson**  
**Donelle Barnes**  
**Maureen Courtney**  
**Barbara Raudonis**  
**Marilee Schmelzer**

**Assistant Professor**  
**Maxine Adegbola**  
**Mindi Anderson**  
**Mary Cazzell**  
**Kathryn Daniel**  
**Ronda Mintz-Binder**

**Associate Adjunct Professor**  
**Lorraine Hegstad**

**Clinical Professor**  
**Diane Snow**

**Assistant Clinical Professor**  
**Patricia Thomas**

**Clinical Instructor**  
**Deborah Boger**  
**Essence Carter Griffin**  
**Sara Duvall**  
**Paula Gillman**  
**Marcia Harris**  
**Mary Haskew**  
**Kellie Kahveci**  
**Sandra Laird**  
**Sayda Major**  
**Bethany Mcclean**  
**Howard Mckay**  
**Lindy Moake**  
**Jodie Moore**  
**Sara Moore**  
**Patti Parker**  
**Vicki Patrick**  
**Dixie Stevenson**  
**Kimberly Wright**  
**Nancy Wyrick**

---

## Graduate Advisors

**Felicia Chamberlain**  
*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Accelerated Online Nursing Admin., M.S.N.*

**Jennifer Gray**  
*Nursing Administration, B.S.N. to Ph.D.*  
*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

**Lauri John**  
*Nursing Administration, B.S.N. to Ph.D.*

*Nursing Educator, B.S.N. to Ph.D.*  
*Nursing, Clinical, B.S.N. to Ph.D.*  
*Nursing, Ph.D.*

**Marie Lindley**

*Accelerated Online Nurse Educator, M.S.N. Non Thesis*  
*Nursing Education, M.S.N.*

**Cynthia Plonien**

*Accelerated Online Nursing Admin., M.S.N.*  
*Nursing Admin. Executive, M.S.N. Non Thesis*

**Mary Schira**

*Doctor of Nursing Practice, D.N.P.*  
*Nurse Practitioner, Post Master Cert-Family*  
*Nurse Practitioner, Post Master's Cert, Adult Geri-Acute Care*  
*Nurse Practitioner, Post Masters Cert, Neonatal*  
*Nurse Practitioner, Post Masters Cert, Pediatric Acute Care*  
*Nurse Practitioner, Post Masters Cert, Pediatric Primary Care*

**Mission and Philosophy**

**History and Overview**

**Accreditation**

**Scholastic Activities and Research Interests of the Faculty**

**Special Programs and Opportunities**

- **Smart Hospital™**
- **Learning Resources Center**
- **Center for Nursing Research**
- **Center for Hispanic Studies in Nursing and Health**
- **Rural Health Outreach Program**
- **Center for Continuing Nursing Education**
- **Programs**
- **Major Areas of Study for Master's of Science in Nursing (MSN)**
- **PhD in Nursing**
- **Doctor of Nursing Practice (DNP)**

**Mission and Philosophy**

The College of Nursing is an integral component of The University of Texas at Arlington and subscribes to the mission of the University. The College of Nursing prepares quality nurse health care providers through excellence in education, scholarship and service. The undergraduate and graduate academic programs prepare individuals for professional nursing roles and for collaboration with other professionals and consumers in the delivery of holistic health care.

The faculty believes learning is a continuous lifelong process and a personal responsibility. Students must be actively involved in the learning process to acquire clinical proficiency and to be socialized into professional roles. Learning experiences are implemented to achieve sequence, continuity, and synthesis of knowledge and expertise as defined by the educational outcomes. Teaching and learning are dynamic processes involving curriculum evaluation and revision based on research evidence, the needs of a multicultural society, and the changing health care system. The educational process facilitates the development of each person's potential and promotes cultural competence and assimilation of ethical principles.

Faculty and students foster an educational climate of mutual respect, honesty, intellectual inquiry, creativity, and effective communication. We contribute to the development of our profession

through the conduct of research and the dissemination and application of evidence-based knowledge. Faculty and students provide service to the community through clinical practice and leadership.

Undergraduate nursing education builds on a foundation of studies in the sciences, humanities, and arts. The baccalaureate program prepares competent, self-directed generalist nurses (Registered Nurses) who can assume increasing responsibility and leadership in the delivery of evidence-based nursing care.

Master's education builds on a foundation of undergraduate nursing education and provides specialty practice with an expanded theoretical and empirical knowledge base. The Master of Science in Nursing programs prepares Registered Nurses for advanced functional roles that require increased accountability, expertise, and leadership. Graduates are prepared to provide evidence-based health care in collaboration with other health care providers and consumers.

Doctoral education develops and advances empirical knowledge to promote evidence-based practice in the discipline of nursing. Graduates have a background to develop theories and conduct research with vulnerable populations and to assume academic, research, and leadership roles. The doctorate provides a basis for future research programs and other scholarly activities.

Lifelong learning is the responsibility of each professional nurse. Continuing education programs developed by the College of Nursing are sensitive to the influences of a changing society and respond to the continuing education needs of professional nurses in Texas.

## History and Overview

The UT Arlington College of Nursing was established in 1971 as the U.T. System College of Nursing in Fort Worth and was housed in John Peter Smith Hospital. The first baccalaureate class enrolled in fall of 1972; the graduate program (MSN) began in 1975. In 1976, the school became an academic unit of UT Arlington, moving to the campus in 1977.

The Undergraduate Program consists of the BSN and the RN to BSN programs. In addition to the Arlington campus, the RN to BSN program is offered via distance education strategies. The Graduate Program offers a Master of Science in Nursing (MSN) with preparation as a nurse practitioner in the areas of Acute Care Adult Gerontology --(1996), Acute Care Pediatric (2005), Adult Gerontology Primary Care (previously Adult and Gerontology) (2013), Family (1975), Gerontology (1984), Neonatal (2008), Primary Care Pediatric (1985) and Psychiatric-Mental Health (1995). Post-master's certificates are available in all the above nurse practitioner specialties. In addition, the UT Arlington MSN Program offers preparation in Nursing Administration (1982) and Nursing Education (2008). Nursing Administration is also offered online through the UT Arlington Academic Partnership program. A dual degree of MSN (administration major) and Masters of Business Administration (MBA) was offered in 1999 and a dual degree of MSN and Masters of Science in Health Care Administration was offered in 2001. A joint degree of MSN and Masters in Public Health (MPH) was offered with University of North Texas Health Science in Center in 2007. Certificates are offered in: Nursing Education (2001) and Advanced Nurse Educator Role (2001). A PhD in Nursing was approved in April 2003 with classes beginning in Fall 2003. A BSN-to-PhD entry option was approved in 2005, with classes beginning in Fall 2006. A Doctor of Nursing Practice (DNP) began in Fall 2009.

## Accreditation

The Master of Science in Nursing and Doctor of Nursing Practice Programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The CCNE address is One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120; Phone is (202) 887-6791 and fax is (202) 887-8476; and Website: [www.aacn.nche.edu/accreditation](http://www.aacn.nche.edu/accreditation). There are no accrediting agencies for PhD in Nursing programs.

## Scholastic Activities and Research Interests of the Faculty

The research programs of the College of Nursing faculty are diverse. A sampling of their areas of study includes Genomics (Dr. Barbara Raudonis); Hispanic health care (Dr. Donelle Barnes and Dr. Susan Baxley); effects of colon cleansing/ gastroenterology (Dr. Marilee Schmelzer); nursing care outcomes (Dr. Reni Courtney); leadership in nursing education (Dr. Ronda Mintz-Binder); chemical dependency and abuse (Dr. Cheryl Anderson and Dr. Diane Snow); nurses in international settings (Dr. Jennifer Gray); sickle cell disease (Dr. Phyllis Adams and Dr. Maxine Adegbola); care of the elderly (Dr. Barbara Raudonis and Dr. Kathryn Daniel); oncology (Dr. Laurie Johns); simulation instruction (Dr. Mindi Anderson and Dr. Judy LeFlore); neonatology, and very low birth weight (Dr. Judy LeFlore).

## Special Programs and Opportunities

### Smart Hospital™

Interim Assistant Dean, Dr. Judy LeFlore

The Smart Hospital™ is a simulated hospital environment complete with state-of-the-science equipment and furnishings. In this facility, students interact with and provide care to a full array of simulated patients who occupy the Emergency Department, ICU, Labor and Delivery suite, pediatric unit, Neonatal ICU, adult medical/surgical beds and the resuscitation room for large team training. Students learn utilizing simulation technology including full body interactive patient simulators, computerized scenario-based programs and individual trainers for specific skills.

### Learning Resources Center

Executive Assistant to the Dean: Lalita Thompson

The mission of the Center is to provide both undergraduate and graduate students support to develop, refine, and apply knowledge in the clinical practice of skills. Computer labs are available for student use. Faculty members are provided resources to support classroom instruction, clinical learning activities, and scholarly endeavors.

### Center for Nursing Research

Associate Dean: Dr. Michael Young

Scholarship is an essential component of the professional role in the College of Nursing. The Center provides support services to faculty and students: identifying funding sources; developing competitive proposals; writing grant applications; retrieving literature; collecting, entering and analyzing data; and disseminating research results and other scholarly products. Collaborative relationships for research with Metroplex health care agencies are in place.

### Center for Hispanic Studies in Nursing and Health

Co-Directors: Dr. Wendy Barr and Dr. Mary Lou Bond

The Center is dedicated to fostering an understanding between health care professionals and people of Hispanic origin for the purpose of increasing understanding of health and healing through research of individual experience, cultural meanings, and the structure of institutions as important variables influencing health outcomes. The Center is also committed to the provision of educational programs and services which will assist health care providers to gain the necessary knowledge and skills to deliver increasingly culturally sensitive and competent care. The Center promotes interdisciplinary and interuniversity collaboration as a strategy for development of resources to solve or deal with bicultural issues facing health care professionals.

### Rural Health Outreach Program

Director: Sylvia Rawlings

The purpose of the Center is to provide appropriate, affordable, accessible continuing education to



the nursing staffs of acute care and psychiatric hospitals, long term care facilities, home health agencies, and other health care facilities in the rural communities of North Central Texas.

### Center for Continuing Nursing Education

The mission of this Center is to provide quality continuing nursing education for the improvement of nursing practice and health care in North Texas. The program strives to be a regional center for the advancement of professional continuing nursing education and to meet the diverse needs of nurses in most every clinical specialty and all levels of functional roles.

### Programs

The Graduate Nursing Program is comprised of two departments – The Department of MSN Administration, Education, and PhD Programs and Research and the Department of Advanced Practice Nursing. The Department of Nursing Administration, Education and Research is made up of the MSN in Nursing Administration (including the dual MSN/MBA and MSN/HCAD degrees and the joint MSN/MPH programs), the MSN in Nursing Education and the PhD in Nursing Programs. The Department of Advanced Practice Nursing is made up of all Nurse Practitioner and Post Master's Nurse Practitioner Certificate Programs and the DNP Program.

### Major Areas of Study for Master's of Science in Nursing (MSN)

- **Nursing Administration**
- **Nursing Education**
- **Nurse Practitioner Programs**
  - Acute Care Adult Gerontology Nursing
  - Acute Care Pediatric Nursing
  - Adult Gerontology Nursing
  - Family Nursing
  - Neonatal Nursing
  - Primary Care Pediatric Nursing
  - Family Psychiatric Mental Health Nursing

### PhD in Nursing

### Doctor of Nursing Practice (DNP)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[School of Architecture](#)[College of Business](#)[College of Education and Health Professions](#)[College of Engineering](#)[College of Liberal Arts](#)[College of Nursing](#)[College of Science](#)[Biology](#)[Chemistry & Biochemistry](#)[Earth and Environmental Sciences](#)[Interdisciplinary Science](#)[Mathematics](#)[Physics](#)[Psychology](#)[School of Social Work](#)[School of Urban and Public Affairs](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## College of Science

**Dean Pamela Jansma****Dean Morteza Khaledi****Associate Dean Minerva Cordero-Epperson****Associate Dean James Grover****Associate Dean Raymond Jackson**Web [www.uta.edu/cos/](http://www.uta.edu/cos/)Email [norris@uta.edu](mailto:norris@uta.edu)

Phone 817.272.3491

Fax 817.272.3511

206 Life Science Building

**501 S Nedderman Dr**

Box 19047, Arlington, Texas 76019, USA

---

## Graduate Faculty

### Biology

[Todd Castoe](#)  
[Woo-Suk Chang](#)  
[Allan Clay Clark](#)  
[Jeffery Demuth](#)  
[John Fondon](#)  
[Matthew Fujita](#)  
[Jason Kubinak](#)  
[Maeli Melotto](#)  
[Mark Pellegrino](#)  
[Jorge Rodrigues](#)  
[Eric Smith](#)  
[Matthew Walsh](#)  
[Sen Xu](#)  
[Kai Zhu](#)

### Professor

[Jonathan Campbell](#)  
[Paul Chippindale](#)  
[Thomas Chrzanowski](#)  
[Daniel Formanowicz](#)  
[Bernard Frye](#)  
[James Grover](#)  
[Robert McMahon](#)  
[James Robinson](#)

### Associate Professor

[David Bernard](#)  
[Esther Betran](#)  
[Laura Gough](#)  
[Sophia Passy](#)

**Michael Roner**

**Assistant Professor**

**Shawn Christensen**  
**Cedric Feschotte**  
**Julian Hurdle**  
**Laura Mydlarz**  
**Andre Pires Da Silva**  
**Ellen Pritham**

**Chemistry & Biochemistry**

**Morteza Khaledi**  
**Robin Macaluso**

**Professor**

**Daniel Armstrong**  
**Purnendu Dasgupta**  
**Rasika Dias**  
**Ronald Eisenbaumer**  
**Carl Lovely**  
**Frederick Macdonnell**  
**Krishnan Rajeshwar**  
**Richard Timmons**

**Associate Professor**

**Jongyun Heo**  
**Peter Kroll**  
**Subhrangsu Mandal**  
**Kevin Schug**

**Assistant Professor**

**Alejandro Bugarin**  
**Saiful Chowdhury**  
**Frank Foss**  
**Junha Jeon**  
**Kayunta Johnson-Winters**  
**Roshan Perera**  
**Bradley Pierce**

**Professor Emeritus**

**Martin Pomerantz**  
**Zoltan Schelly**

**Earth and Environmental Sciences**

**Professor**

**Asish Basu**  
**Glen Mattioli**  
**Merlynd Nestell**  
**John Wickham**

**Associate Professor**

**Qinhong Hu**  
**Andrew Hunt**

**Assistant Professor**

**Majie Fan**  
**Elizabeth Griffith**  
**William Griffith**  
**Arne Winguth**

**Adjunct Professor**

**Galina Nestell**

**Associate Adjunct Professor**

**Larry Standlee**

**Assistant Adjunct Professor**

**Harold Rowe**

**Interdisciplinary Science**

**Director**

Gregory Hale

**Mathematics**

Suvra Pal

Jonghyun Yun

**Professor**

Tuncay Aktosun

Benito Chen

Minerva Cordero-Epperson

Chien-Pai Han

David Jorgensen

Hristo Kojouharov

Andrzej Korzeniowski

Ren-Cang Li

Guojun Liao

Chaoqun Liu

Yue Liu

Merlynd Nestell

Jianzhong Su

Shan Sun-Mitchell

Michaela Vancliff

**Associate Professor**

Gaik Ambartsoumian

James Epperson

Ruth Gornet

Dimitar Grantcharov

Doyle Hawkins

Theresa Jorgensen

Barbara Shipman

**Assistant Professor**

Yan Li

**Physics**

Jonathan Asaadi

Matthew Benacquista

Haleh Hadavand

Fredrick Jenet

Mingwu Jin

Benjamin Jones

Soma Mukherjee

David Nygren

Malik Rakhmanov

Joseph Romano

**Professor**

Andrew Brandt

Manfred Cuntz

Kaushik De

John Fry

Ali Koymen

Ping Liu

Ramon Lopez

Zdzislaw Musielak

Asok Ray

Roy Rubins

Suresh Sharma

Alexander Weiss

Andrew White

Jaehoon Yu

Qiming Zhang

**Associate Professor**

Wei Chen

Nail Fazleev

**Assistant Professor**

Yue Deng

**Amir Farbin**  
**Muhammad Huda**  
**Christopher Jackson**  
**Samarendra Mohanty**  
**Joseph Ngai**  
**Sangwook Park**

### **Psychology**

**Angela Liegey-Dougall**  
**Qing Lin**  
**Kelsey Medeiros**  
**Pablo Mora**  
**Craig Nagoshi**  
**Heekyeong Park**  
**Amber Schroeder**  
**Shannon Scielzo**  
**Karen Twohey**

### **Assistant Professor in Practice**

**Nicolette Lopez**

### **Professor**

**Robert Gatchel**  
**William Ickes**  
**Daniel Levine**  
**Roger Mellgren**  
**Paul Paulus**

### **Associate Professor**

**Perry Fuchs**  
**Lauri Jensen-Campbell**  
**Jared Kenworthy**  
**Martha Mann**  
**Yuan Peng**

### **Assistant Professor**

**Jeffrey Gagne**  
**Linda Perrotti**

### **Professor Emeritus**

**Verne Cox**

---

## **Graduate Advisors**

### **Gloria Burlingham**

*Biology, M.S.*  
*Biology, Non-Degree Seeking*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Paul Chippindale**

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Shawn Christensen**

*Biology, M.S.*  
*Quantitative Biology, B.S to Ph.D.*  
*Quantitative Biology, Ph.D.*

### **Stacey Cody**

*Physics and Applied Physics, B.S. to Ph.D.*  
*Physics and Applied Physics, Ph.D.*

### **James Epperson**

*Mathematics, M.A.*

### **Gregory Hale**

*Interdisciplinary Science, M.A.*

**Andrew Hunt**

*Earth and Environmental Science / Geology, M.S.*  
*Earth and Environmental Science, Ph.D.*

**Jared Kenworthy**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*

**Hristo Kojouharov**

*Applied Statistics Certificate*  
*Mathematical Sciences, Mathematics, Ph.D.*  
*Mathematics (General Mathematics), B.S. to Ph.D.*  
*Mathematics (General Mathematics), M.S.*  
*Mathematics (General Mathematics), Ph.D.*  
*Mathematics (General Statistics), B.S. to Ph.D.*  
*Mathematics (General Statistics), M.S.*  
*Mathematics (General Statistics), Ph.D.*

**Peter Kroll**

*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, Ph.D.*

**Maria Levings**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**Robin Macaluso**

*Chemistry, B.S. to Ph.D.*  
*Chemistry, M.S.*  
*Chemistry, M.S. Thesis Substitute*  
*Chemistry, Non-Degree Seeking*  
*Chemistry, Ph.D.*

**Paul Paulus**

*Psychology, Industrial and Organizational, M.S.*

**Yuan Peng**

*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*

**Michael Roner**

*Biology, M.S.*  
*Quantitative Biology, B.S. to Ph.D.*  
*Quantitative Biology, Ph.D.*

**Sarah Watson**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**John Wickham**

*Earth and Environmental Science / Geology, M.S.*

**Qiming Zhang**

*Physics, M.S.*

**Mission and Philosophy**

- **Overview**

**Scholastic Activity and Research Interests of the Faculty**

- **Biology**
- **Chemistry and Biochemistry**

- **Earth and Environmental Sciences**
- **Mathematics**
- **Physics**
- **Psychology**
- **Science Education**

#### **Programs**

- **Master of Science Degrees**
- **Master of Arts Degree**
- **Doctoral Degrees**

## **Mission and Philosophy**

The College of Science graduate programs are committed to excellence in graduate education and research and contribute, along with other institutions in this country and throughout the world, to the expansion of scientific knowledge. Graduates of our programs are highly trained and educated scientists who will be able to contribute to the economic and social well-being of our state and nation.

### **Overview**

With outstanding departments of Biology, Chemistry and Biochemistry, Earth and Environmental Sciences, Mathematics, Physics and Psychology, the College of Science offers comprehensive graduate studies with our world class faculty and research programs. In addition to providing our students with strong core training in the physical and life sciences, we have a graduate program in Materials Science and Engineering and offer specialized Masters degrees for educators to expand their core science training. Interdisciplinary programs and Research Centers provide students with opportunities to span disciplines, and student research activities are complemented by excellent research facilities and state-of-the-art instrumentation. The College and Departments host a series of seminars to further expose our students to cutting edge science developments.

Master's degrees are offered in all of our departments, and we award Ph.D. degrees in Quantitative Biology, Applied Chemistry, Environmental and Earth Sciences, Mathematical Sciences, Mathematics, Applied Physics, Experimental Psychology, and Materials Science and Engineering. For application and entrance requirements, or more on our graduate programs, please call us or visit our Web site at [www.uta.edu/cos](http://www.uta.edu/cos).

## **Scholastic Activity and Research Interests of the Faculty**

### **Biology**

The Department of Biology has a wide array of research programs ranging from molecular through ecosystem levels of integration. The program boasts strengths in ecology and systematics, evolution, microbiology, genomics, and molecular biology, and has active funding from a variety of private and public agencies. The department also hosts centers for genomics, biological macrofouling, electron microscopy and a collection of vertebrates. The research program emphasizes quantitative aspects of biology and provides students with strong training in statistics and experimental design.

### **Chemistry and Biochemistry**

Research programs include synthetic work on natural products, medically active agents, novel ligands, new catalysts, luminescent materials, photocatalysts, supramolecular and metallocsupramolecular compounds, molecular magnetism, molecular recognition, stabilization of reactive intermediates, solar energy conversion and electrically conducting polymers. Biochemical research includes studies of enzymology and molecular biology of bacterial metabolism, and studies on problems involved in anticancer therapy. Physical, analytical and electrochemical research includes studies of colloids and surfaces, electrode modification through thin film surface deposition, MALDI mass spectrometry and characterization of the electrical properties of polymers

and other materials. Theoretical studies involve both a major computational program applying molecular orbital theory to a variety of problems.

## Earth and Environmental Sciences

Department research has a strong orientation toward the application of geochemistry, oceanography, geophysics and paleobiology to earth resources and the environment. Current research interests include analysis and modeling of geologic deformational structures, biostratigraphy of accreted terranes of the Pacific Northwest and the middle Permian of West Texas, sedimentology, paleoclimatology, hydrology, fluvial geomorphology, environmental health, and plate tectonics.

## Mathematics

**Algebra:** homological theory of commutative Noetherian rings; noncommutative algebra using geometric methods: symbolic computations.

**Differential Equations, Integral Equations and Dynamical Systems:** geometric study of integrable Hamiltonian systems; stability and instability of solitary waves; nonlinear dispersive waves; free boundary problems related to phase transition and multi-fluid flow; stochastic differential equations; control theory.

**Cooperative Game Theory:** semivalues, least square values, properties, potentials and computation; the inverse problem.

**Geometry:** birational algebraic geometry and Mori theory; differential geometry and inverse spectral geometry; finite geometry related to nonassociative division algebras.

**Mathematical Biology:** mathematical modeling of microbial populations, biofilms and competition dynamics; population biology and epidemiology; neuronal dynamics.

**Mathematical Statistics, Probability Theory and Stochastic Process:** multivariate analysis, statistical inference, sample survey and statistical process control; stochastic processes and applications to stochastic differential equations, random graphs, path integrals, quantum mechanics.

**Mathematical Education:** mathematics program development, impact of reform mathematics learning strategies on mathematics teaching, mathematics problem solving for teaching.

**Numerical Analysis:** numerical solutions to ordinary and partial differential equations; moving grid, multigrid and multilevel adaptive methods; fluid dynamics (mechanics); numerical simulation and scientific computation; numerical combustion; software development.

## Physics

Current research in the department is primarily in the areas of condensed matter physics, materials science and high energy physics. The theoretical condensed matter group is engaged in cluster, electron transport, electronic structure, molecular dynamics and path integral computations having relevance to the chemical, electrical and magnetic properties of surfaces, metals and semiconductors. The experimental condensed matter group is engaged in studies of diamond coatings, magnetic multilayers, metals, semiconductors and surfaces using electron, positron, optical and magnetic resonance spectroscopies. The experimental high energy group is involved in collider experiments at Fermilab, Brookhaven Laboratory and CERN to study QCD and to search for supersymmetry and other physics beyond the standard model. Other active research areas include high energy theory, optics, parallel computing and statistical physics.

## Psychology

Expertise and research activity include animal behavior, animal and human learning, cognitive processes, social psychology, psychobiology and developmental psychology. Current research interests include group brainstorming, verbal memory and neuropsychology, applied psychological measurement, pain systems, decision processes, naturalistic social cognition, stress, genetic and

hormonal determinants of aggressive and defensive behaviors and parent-offspring interactions, sea turtle behavior, and infant mental representation of objects.

## Science Education

The Master of Arts in Interdisciplinary Science (MAIS), a 36 credit hour degree program without a thesis requirement, was designed and developed by science teachers for science teachers. The program will help science educators strengthen and update their knowledge of content in two or more of the following cognate areas: biology, chemistry, earth & environmental sciences, mathematics, and physics. In addition to enhancing content knowledge, the courses will help educators develop teaching strategies that lead to improved student learning, implement high quality instructional materials, and develop skills in using various strategies for assessing student learning. The MAIS degree will serve the needs of classroom teachers, content-area and staff development specialists, curriculum developers, program directors, school administrators, college/university faculty, and educators from informal science institutions who have responsibility for designing, delivering, evaluating, and/or continuously improving standards-based science, mathematics, and technology instruction for students, prekindergarten through the undergraduate degree.

While engaging in the coursework, educators will become learners themselves to deepen their own mastery of scientific and/or mathematical content. The laboratory-based learning activities in the program will help science educators see teaching as less a matter of knowledge transfer and more as an activity of facilitation in which knowledge is generated, content is investigated in depth, and meaning is developed from experience. Graduates of the program will take their place as master science educators who are recognized as proven practitioners in delivering rigorous and relevant instruction and are valued as effective coaches, mentors, and teacher trainers.

## Programs

### Master of Science Degrees

Biology

Chemistry

Earth & Environmental Sciences (Both Thesis and Non-thesis)

Mathematics

Physics

Psychology

### Master of Arts Degree

Interdisciplinary Science (Non-thesis)

### Doctoral Degrees

Chemistry

Experimental Psychology

Physics and Applied Physics

Quantitative Biology

Mathematics

Environmental and Earth Sciences



Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
    - Social Work - MSSW & PhD
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Social Work

### Dean **Scott Ryan**

Associate Dean **John Bricout**  
Associate Dean **Debra Woody**

Web [www.uta.edu/ssw/](http://www.uta.edu/ssw/)  
Email [sswadmissions@uta.edu](mailto:sswadmissions@uta.edu)  
Phone 817.272.3181  
Fax 817.272.5229

Social Work Complex Building A  
**211 S Cooper St**  
Box 19129, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### Social Work

**Yvonne Butler**  
**Noelle Fields**  
**Janet Finch**  
**Schnavia Hatcher**  
**Michael Killian**  
**Anne Nordberg**

**Assistant Professor in Practice**  
**Jane Hickerson**

**Associate Dean for Research & Community Outreach**  
**John Bricout**

**Associate Dean of Academic Affairs**  
**Debra Woody**

**Professor**  
**Beverly Black**  
**Doreen Elliott**  
**Rebecca Hegar**  
**Richard Hoefler**  
**Ski Hunter**  
**Catheleen Jordan**  
**Vijayan Pillai**  
**Phillip Popple**  
**Maria Scannapieco**

**Associate Professor**  
**Randall Basham**  
**Norman Cobb**  
**Peter Lehmann**  
**Diane Mitschke**  
**Sung Moon**  
**Alexa Smith-Osborne**

#### **Assistant Professor**

[Gail Adorno](#)  
[Joan Blakey](#)  
[Courtney Cronley](#)  
[Elissa Madden](#)  
[Regina Praetorius](#)  
[Katherine Sanchez](#)  
[Eusebius Small](#)  
[Larry Watson](#)

#### **Professor Emeritus**

[James W Callicutt](#)  
[Wayne Duehn](#)  
[Peter G Gaupp](#)  
[Santos Hernandez](#)  
[Pedro J Lecca](#)  
[John J Litrio](#)  
[Nazneen Mayadas](#)  
[Charles Mindel](#)  
[Richard Schoech](#)  
[M Coleen Shannon](#)  
[Fernando G Torgerson](#)  
[Thomas Watts](#)

---

### **Graduate Advisors**

[Nancy Ashenart](#)  
*Social Work, Ph.D.*

[Randall Basham](#)  
*Social Work, M.S.S.W.*

[Beverly Black](#)  
*Social Work, Ph.D.*

#### **Mission and Philosophy**

#### **History and Overview**

#### **Accreditation**

#### **Scholastic Activity and Research Interests of the Faculty**

#### **Programs**

### **Mission and Philosophy**

The mission of the UT Arlington School of Social Work is to advance knowledge, pursue excellence, provide leadership and service for enhancing well being, and to promote social and economic justice and cultural competence with diverse cultures.

### **History and Overview**

The School of Social Work was established as the Graduate School of Social Work in 1967 by an act of the Texas Legislature. It became the School of Social Work in 1991 when the University's undergraduate social work program in the College of Liberal Arts merged with the school's graduate program.

More than 4,000 students have earned degrees at the school and many hold key management positions in public agencies and nonprofit organizations nationwide. Currently, the school has a diverse student body of approximately 600 M.S.S.W. graduate students and 60 Ph.D. students. Many of these students also hold full- or part-time positions in public agencies and nonprofit organizations.

One distinguishing feature of the school is its location in the heart of the Dallas-Fort Worth Metroplex, a rich urban laboratory of more than 150 cities with a population over 4.5 million. This

complex social arena offers a wide array of opportunities for student projects, field placements and employment. Social work faculty, staff and students work on "real-life" social problems in cooperation with city governments, public agencies and nonprofit organizations.

## Accreditation

The Council on Social Work Education has fully accredited the M.S.S.W. program. Accreditation is an important consideration for students because many professional social work positions require a degree from a CSWE accredited program. Academic credit for life experience and previous work experience is not given.

## Scholastic Activity and Research Interests of the Faculty

School of Social Work faculty engage in research and community-service projects that enhance the effectiveness of the programs of public and nonprofit social-service organizations, that promote social justice and equality, and that extend the body of knowledge about social issues. Research topics span the broad range of social-work issues, including feminist theory, minority rights, child abuse, mental illness, ethics, aging, sexual abuse, community development, lesbian and gay persons, marital and family therapy, family violence, clinical assessment, stalking, constructivism, cognitive-behavioral treatment efficacy, adoption, siblings, foster care, African American fathers, substance abuse, social policy, and evaluations of state and federal child-welfare and community-service programs.

## Programs

The School of Social Work currently offers two graduate programs of study: the Master of Science in Social Work (M.S.S.W.) and the Ph.D. The Ph.D. program offers two options: the Ph.D. in Social Work or a specialty in comparative social policy, in collaboration with La Universidad Autonoma de Nuevo Leon, that is taught in Texas and Mexico and requires fluency in English and Spanish. Degrees are awarded from both universities.

The school offers distance education M.S.S.W. programs in cooperation with other universities across the state. More than 400 students have graduated from such programs. Courses are also offered via the Internet and telecommunication for local students and those in distance education programs.

The school also offers training, research and service opportunities to faculty and students through its centers and other programs. The Judith Granger Birmingham Center for Child Welfare provides support and graduate training to current and potential child-welfare workers and supports faculty and student research on child-welfare issues. The Community Services Center is an instructional facility that provides a university-community partnership addressing community issues. The partnership enables university students, faculty and neighborhood organizations to work together to tackle complex socioeconomic issues facing the neighborhoods that surround them, such as poverty, domestic violence, homelessness and community revitalization. The purpose of the center is twofold: to provide professional training for graduate students and to provide professional services to the community. Community development interns conduct needs assessments, write grant proposals, design new programs, conduct evaluations, perform research and organize action groups. Community clinic interns provide affordable counseling for children, adolescents and families. Counseling services include individual counseling, marriage counseling, premarital counseling, family therapy, group counseling, anger control therapy, and social skills training. The community clinic also provides graduate interns an opportunity to conduct research programs in the area of counseling. The Center for Research, Evaluation and Technology involves students and faculty in program evaluations for local social service agencies and in the development of new and innovative ways to support human services practice. The Professional Development Program provides continuing education seminars for social work practitioners and other human services professionals. The seminars provide the continuing education units necessary for license renewals.

The school hosts an annual conference for students, alumni and community professionals.

[www.uta.edu/ssw](http://www.uta.edu/ssw)

Published in June of 2013. This catalog supersedes the **2012-2013 Graduate Catalog**.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
    - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## School of Urban and Public Affairs

### Dean [Barbara Becker](#)

Web [www.uta.edu/supa/](http://www.uta.edu/supa/)  
Phone 817.272.3071  
Fax 817.272.5008

511 University Hall  
[601 S Nedderman Dr](#)  
Box 19588, Arlington, Texas 76019, USA

---

### Graduate Faculty

#### City and Regional Planning

**Graduate Advisor**  
[Karolyn Field](#)

**Program Director**  
[Ivonne Audirac](#)

**Professor**  
[Ardeshir Anjomani](#)  
[Barbara Becker](#)  
[Jianling Li](#)

**Associate Professor**  
[Enid Arvidson](#)  
[Carl Grodach](#)

**Assistant Professor**  
[Karabi Bezboruah](#)  
[Yekang Ko](#)  
[Andrew Whittemore](#)

#### Interdisciplinary Studies

**Assistant Director**  
[Michael Wollman](#)

**Graduate Advisor**  
[Karolyn Field](#)

**Assistant Professor**  
[Michan Connor](#)  
[James Welch IV](#)

**Clinical Professor**  
[Mike West](#)

#### Public Administration

**Graduate Advisor**

[Karolyn Field](#)

**Program Director**  
[David Coursey](#)

**Professor**  
[Richard Cole](#)

**Associate Professor**  
[Rod Hissong](#)  
[Maria Martinez-Cosio](#)  
[Alejandro Rodriguez](#)

**Assistant Professor**  
[Karabi Bezboruah](#)  
[Colleen Casey](#)  
[Darla Hamann](#)

## Urban and Public Affairs

[Mahyar Arefi](#)  
[Shima Hamidi](#)

**Graduate Advisor**  
[Karolyn Field](#)

**Program Director**  
[David Coursey](#)

**Professor**  
[Ardeshir Anjomani](#)  
[Richard Cole](#)

**Associate Professor**  
[Enid Arvidson](#)  
[Rod Hissong](#)  
[Maria Martinez-Cosio](#)  
[Alejandro Rodriguez](#)

**Assistant Professor**  
[Colleen Casey](#)  
[Darla Hamann](#)

---

## Graduate Advisors

[Ardeshir Anjomani](#)  
*Urban Planning & Public Policy, Ph.D.*

[David Coursey](#)  
*Public & Urban Administration, Ph.D.*

[Karolyn Field](#)  
*City & Regional Planning, M.CIRP.*  
*Public & Urban Administration, Ph.D.*  
*Public Administration, M.P.A. On Campus.*  
*Urban Affairs, M.A.*  
*Urban Planning & Public Policy, Ph.D.*

[Anthony Valdez](#)  
*City & Regional Planning, M.CIRP.*  
*Public & Urban Administration, Ph.D.*  
*Public Administration, M.P.A. On Campus.*  
*Urban Affairs, M.A.*  
*Urban Planning & Public Policy, Ph.D.*

[Mission and Philosophy](#)

[History and Overview](#)

## Accreditation

### Scholastic Activity and Research Interests of the Faculty

#### Programs Overview

- [Degree Programs](#)
- [Master's Programs](#)
- [Certificate Programs](#)
- [Ph.D. Programs](#)

## Mission and Philosophy

The mission of the School of Urban and Public Affairs is to conduct basic and applied research into urban problems and public policy, to provide services in support of public and nonprofit agencies, and to educate and train students for public service careers.

## History and Overview

SUPA was established in 1967 as the Institute of Urban Studies by an act of the Texas Legislature. The institute's mandate was to offer Texas city and county governments and other public agencies high-caliber, university-based research, training and other technical services. In 1990, after significant expansion of its staff and programs, the organization became the School of Urban and Public Affairs. The institute continues to operate as a vital part of the school.

SUPA is the state's only university-based center for applied research and service in urban affairs. It is called upon routinely to study and recommend solutions for problems confronting government agencies, nonprofit organizations and private industry.

During its more than 40 years of existence, SUPA has conducted hundreds of studies on such topics as transportation, housing, local economic development, public safety, corrections, education, human services, child care and regional governance. Its reports are included in the collections of virtually every major library in Texas and have been adopted as texts at many colleges and universities.

Within SUPA is the Institute of Urban Studies that is a primary source of information and advice in such matters as computer applications in urban management, home rule charters, redistricting, inter-local contracting, economic development, personnel management, revenue administration, land appraisal, zoning and land-use issues. SUPA is active in training local government officials and in consulting on service projects for governmental agencies worldwide. Urban professionals rely on SUPA for consultation and guidance in accomplishing such goals as urban revitalization, pollution control, conservation, and facility planning and siting.

SUPA uses the most advanced computers, data collection and analysis techniques in conducting research, and its more than 20 faculty and staff draw upon their rich and diverse educational and cultural backgrounds. One distinguishing feature of SUPA is its location in the heart of the Dallas-Fort Worth Metroplex, a rich urban laboratory of more than 200 cities with a total population of approximately 6 million. This complex urban arena offers a wide array of opportunities for student projects, internships and employment. SUPA faculty, staff and students work on "real-life" urban and public affairs projects in cooperation with city governments, public agencies and nonprofit organizations through the school's institutes and centers.

## Accreditation

The School of Urban and Public Affairs is one of only approximately 20 in the country having both its Master's of Public Administration and its Master's of City and Regional Planning programs fully accredited by their respective accrediting agencies.



The Master's of City and Regional Planning is officially recognized and accredited by the Planning Accreditation Board that accredits North American planning programs on the basis of a strict and extensive set of criteria rooted in planning knowledge, skills, and values. Students enrolled in accredited programs are eligible for certain national scholarships, and graduates of accredited programs may qualify for certification by the American Institute of Certified Planners after fewer years of experience than graduates of nonaccredited programs.

The Master's of Public Administration degree is accredited by the National Association of Schools of Public Affairs and Administration that requires public administration programs to meet strict standards for faculty qualifications, curriculum content, admissions and program requirements, student composition and services, budget and facilities. Accreditation enhances the program's national reputation and opens doors and provides opportunities for students applying for Texas-based scholarships and nationwide positions.

SUPA was ranked as one of the best programs in the nation by U.S. News & World Report in 2008.

## **Scholastic Activity and Research Interests of the Faculty**

SUPA faculty are actively engaged in research and community service projects that benefit local jurisdictions, public and nonprofit agencies with expertise that is beyond the normal scope of their particular services and resources. Typical projects include revitalization studies for inner-city neighborhoods, development plans for central business districts, economic development strategies for municipalities, inter-local contracting studies, and assessments of service delivery alternatives in communities and school districts.

The broad range of faculty research interests primarily focuses on local issues and provides support for local officials and urban professionals, but it also includes basic research into urban problems and public policy that is published in national journals and used in university texts. Research topics include such urban affairs issues as urban theory, development, management, politics, social welfare policy, social service administration and minority relations; such planning issues as urban design, land use analysis, environmental planning, economic development, community service and development, focus group research and group facilitation; and such public administration issues as public management, intergovernmental relations, entrepreneurship in government, education and economic development.

## **Programs Overview**

### **Degree Programs**

Master's of Arts in Urban Affairs  
Master's of City and Regional Planning  
Master's of Public Administration  
Ph.D. in Public and Urban Administration  
Ph.D. in Urban Planning and Public Policy

SUPA participates in dual-degree programs with the schools of Architecture, Nursing and Social Work. It participates with the colleges of Engineering and Science in an interdisciplinary program leading to Master's and Doctoral degrees in environmental science and engineering.

### **Master's Programs**

#### **Urban Affairs**

The Master of Arts in Urban Affairs prepares students for policy and/or management positions in local government, regional government, nonprofit and private sector consulting and for other professional positions in economic development, social planning, community organizing, and urban journalism.

The program is organized around public policy issues with emphasis on the problems and questions related to life in urban communities. Because urban issues are complex and require the understanding and skills of many disciplines, the program is interdisciplinary in character, curriculum content, teaching staff, and enrollment. The degree is built around an urban core with students choosing a policy or non-profit oriented concentration.

### **City and Regional Planning**

The MCRP program prepares students for careers as professional planners with public, private and nonprofit organizations. It does this by training students to apply planning theory, knowledge, techniques, and skills to “real world” planning problems through coursework, studios, and internship opportunities.

UTA’s City and Regional Planning Master’s Degree Program is accredited by the [Planning Accreditation Board](#) (PAB). The program’s mission, goals and objectives, and accreditation efforts are shaped in consultation with the MCRP Advisory Board composed of alumni and area practitioners.

### **Public Administration**

Public Administration is concerned with the formulation, analysis, negotiation, and implementation of democratically responsible collective action. With an interdisciplinary focus, this program gives special emphasis to the urban community and the special challenges of public managers who serve in urban areas. The curriculum is designed to develop leadership capacity, understanding of the political, social, and economic characteristics of today’s urban environment and the ability to apply current theories of management and analysis to difficult management issues. The program is meant as preparation for those entering management careers in government for the first time or as career development for those already employed who are seeking upward mobility in public management. The Master of Public Administration is a joint program of the School of Urban and Public Affairs and the Department of Political Science.

The MPA degree at the School of Urban and Public Affairs is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA), and the curriculum conforms to NASPAA standards.

### **Certificate Programs**

SUPA offers certificate programs in Development Review, Geographic Information Systems, Public Budgeting and Financial Management and Urban Non-Profit Management, designed to provide skills and proficiency in highly specialized areas. Students enrolled in graduate degree programs at UT Arlington as well as students not enrolled in graduate degree programs are eligible to apply for these certificate programs. Students who are already enrolled in a graduate degree program at U.T. Arlington need only declare their intent to enroll by contacting their academic advisor. No prerequisites are required for these students. Those desiring to enroll in a certificate program but who are not currently enrolled in a graduate program may do so by applying to UT Arlington as a non-degree seeking special student. Upon completion of all requirements, a certificate of completion is awarded by the University. Information on all certificate programs can be found below by clicking on the certificate of interest.

### **Ph.D. Programs**

#### **Urban Planning and Public Policy Program**

The UPPP Ph.D. program requires a minimum of 48 credit hours beyond the master’s degree, including 39 credit hours of coursework and a minimum of 9 dissertation credit hours. The 39 credit hours of coursework include: 6 hours of leveling courses, 9 hours in the required core of urban planning and public policy, 6 hours of methods courses and 18 hours of elected specialization courses. Courses and credit hours may be waived for students with relevant previous coursework upon approval of the dissertation supervisor and program director.

Coursework in the required core, which covers core knowledge and competencies in planning and policy, as well as the courses in the selected field areas prepares students for the field exam. In

their first semester, students select their committee based on their interests and take a diagnostic exam. The student's committee will then guide their course work, including any extra courses needed based on their diagnostic exam.

### **Public and Urban Administration**

The PUAD Ph.D. has eight required core courses, three required research courses, and a minimum of 9 dissertation credit hours. The eight core courses address the social sciences and public administration literatures critical to the integrative approach of the program. The methods courses include an intermediate quantitative methods course, and a qualitative methods course. Students also enroll in URPA 6301 to guide them in preparing their dissertation proposal. Students select their supervising committee during their first year to help guide them through their comprehensive exams and begin working on their dissertation proposal.

A student can expect to complete the 11 required courses in no more than two academic years. Upon completing them, students sit for their written comprehensive examination. The comprehensive examination is an integrative exam that blends public policy issues with public administration.

Students who completed a Masters in Public Administration may be eligible to waive some coursework and are encouraged to meet with the PUAD advisor.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
    - Biology
    - Chemistry & Biochemistry
    - Earth and Environmental Sciences
    - Interdisciplinary Science
    - Mathematics
    - Physics
    - Psychology
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Interdisciplinary Science

College of Science

Web [cos.uta.edu/mais/](http://cos.uta.edu/mais/)

Email [ints@uta.edu](mailto:ints@uta.edu)

Phone 817.272.3511

501 S Nedderman Drive

---

### Degrees / Certificates

#### Master's Degrees

Interdisciplinary Science, M.A.

---

### Graduate Faculty

#### Director

[Gregory Hale](#)

---

### Graduate Advisors

#### [Gregory Hale](#)

*Interdisciplinary Science, M.A.*

---

### Department Information

#### Courses

## Department Information

### Objective Admission

- [Unconditional](#)
- [Admission as Special Student](#)
- [Degree Requirements](#)

### Objective

The Master of Arts in Interdisciplinary Science program is designed to strengthen and update the knowledge and skills necessary to teach science at the elementary, middle school, or secondary level. The MAIS degree is intended to help prepare teachers who desire certification in science, teachers who may wish to expand their knowledge of specific science disciplines, or those who wish to update their knowledge in rapidly changing science disciplines. Traditional masters degrees focus on classes in a single science department and encourage mastery of material in a sub specialty within the discipline. A thesis involving scientific research in the area of specialization is usually encouraged. In contrast, the MAIS program allows students to explore two or three areas of interest, and the courses are designed to provide an overview of current knowledge in each field. Since this is not a research-oriented degree, no thesis is required.

The content of the required courses was developed to contain material consistent with TEKS standards and to provide as much replicable laboratory experience as possible. While these classes are drawn from the foundational classes in each discipline, they are designed to cover the areas in greater depth, deal with historical aspects of the topics not covered in undergraduate classes, and focus on teaching and laboratory methodologies.

## Admission

### Unconditional

Students applying for unconditional admission to the MAIS program must meet the general graduate school admission requirements as outlined in the graduate catalog and earn a combined score of 1000 on the Graduate Record Exam (GRE).

### Admission as Special Student

Students may apply for admission to the MAIS program as a "special student." Special student admission will allow an individual to enroll for 9 credit hours of MAIS coursework. Upon completion of 9 credit hours, the student must apply for unconditional admission to the MAIS program and pay an additional \$40 application fee. If the applicant has completed 9 credit hours of coursework with a 3.0 or higher, the completed coursework will substitute for the GRE examination.

### Degree Requirements

The MAIS degree is a 36 credit hour, non-thesis degree. Beginning students are encouraged to enroll in Contemporary Science, SCIE 5301, and students completing the degree enroll in a Capstone Science Seminar, SCIE 5302. These two courses constitute the 6 credit hour science core.

Students can select two or three areas of concentration from biology, chemistry, earth & environmental sciences, mathematics, and physics. If the student chooses two concentration areas, each concentration will consist of four 3 credit hour courses for a total of 12 credit hours each. The remaining six credit hours may be taken as unrestricted science and math electives. If the student chooses three concentration areas, each concentration will consist of three 3 credit hour courses for a total of 9 credit hours each. The remaining three credit hours may be taken as unrestricted science or math electives. Students may also choose to select elective courses from College of Education and Health Professions graduate coursework with advisor approval.

Students must file a degree plan approved by the graduate advisor two long semesters prior to graduation.

## SCIE Courses

### SCIE5192 – SELECTED TOPICS IN SCIENCE

1 Lecture Hour · 0 Lab Hours

Topics in science not treated in the regular curriculum. Topic, format, and prerequisites to be determined by

the instructor. May be repeated for credit as different topics are offered

### **SCIE5292 – SELECTED TOPICS IN SCIENCE**

**2** Lecture Hours · **0** Lab Hours

Topics in science not treated in the regular curriculum. Topic, format, and prerequisites to be determined by the instructor. May be repeated for credit as different topics are offered

### **SCIE5301 – CONTEMPORARY SCIENCE**

**3** Lecture Hours · **0** Lab Hours

This class will review modern topical areas in contemporary science from a broadly multidisciplinary view. Readings from popular and scientific journals will be combined with lectures from different disciplines, to review the newest science innovations. Materials presented will familiarize students with current research, major breakthroughs in various fields, and the foundational science behind the discoveries. Topics covered should enrich K-12 science curricula and help teachers to address student questions about breaking science news. This class is intended for M.A. in Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in the College of Science.

### **SCIE5302 – CAPSTONE SCIENCE SEMINAR**

**3** Lecture Hours · **0** Lab Hours

The Capstone Science Seminar is an intensive research and discussion class that will focus on new studies in science education and practice. Students in the M.A. in Science program should take this class in the last semester of study. This class will include a research project relevant to science education, and formal presentation of the research. This class is intended for M.A. in Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in the College of Science

### **SCIE5303 – TEACHING AND LEARNING: SCIENTIFIC INQUIRY**

**3** Lecture Hours · **0** Lab Hours

Scientific inquiry refers to the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work. This course explores inquiry as it refers to the activities of students in which they develop knowledge and understanding of scientific ideas, as well as an understanding of how scientists study the natural world

### **SCIE5304 – SPECIAL TOPICS IN SCIENCE I**

**3** Lecture Hours · **0** Lab Hours

Seminar on significant research in science. Topics are selected with the assistance of the instructor and may include both pure and applied science

### **SCIE5305 – SPECIAL TOPICS IN SCIENCE II**

**3** Lecture Hours · **0** Lab Hours

Seminar on significant research in science. Topics are selected with the assistance of the instructor may include both pure and applied science

### **SCIE5307 – INTEGRATED PHYSICS AND CHEMISTRY: CHEMISTRY**

**3** Lecture Hours · **0** Lab Hours

This integrated study of physics and chemistry fundamental chemical principles including atomic structure, chemical bonding, the periodic table, nomenclature, kinetic theory, gas laws, chemical equations, and solutions.

### **SCIE5308 – INTEGRATED PHYSICS AND CHEMISTRY: PHYSICS**

**3** Lecture Hours · **0** Lab Hours

This integrated study of physics and chemistry includes force and motion, waves and thermodynamics, energy transformations, quantum physics, and atomic structure.

### **SCIE5321 – MECHANICS, HEAT, & WAVE MOTION**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Topics include: 1) Newton's laws of motion, gravitation, and planetary motion; 2) the basic laws of thermal and statistical physics; 3) oscillatory motion including waved and sound. Replicable experiments will be demonstrated throughout the course. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: Trigonometry.

### **SCIE5322 – ELECTRICITY, MAGNETISM, CIRCUITS, & OPTICS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Topics include: 1) Static changes, current flows, electric and magnetic fields; 2) simple DC/AC electrical circuits including examples from household circuit and practical electronic devices; 3) light and optics including examples such as camera, microscopes and telescopes. Replicable experiments will be demonstrated throughout the course. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: SCIE 5321.

### **SCIE5323 – MODERN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Topics include: 1) introduction to special relativity and quantum theory; 2) light and radiation; 3) applications to modern electronic devices; 4) nuclear particle physics. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: SCIE 5321, SCIE 5322.

### **SCIE5329 – LABORATORY TECHNIQUES IN PHYSICS**

**0** Lecture Hours · **2** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in the teaching of fundamental physics. Experiments demonstrating various topics are covered. Experiments include gravitational acceleration heat flow, harmonic motion, sound, electric, magnetic fields, electric circuits, optic, x-rays and nuclear radiation. This class is intended for M.A. in Interdisciplinary Science majors and may not be taken for credit for M.S. or Ph.D. degrees in the College of Science. Prerequisite: SCIE 5321, SCIE 5322.

### **SCIE5330 – EARTH SYSTEMS, PART I**

**3** Lecture Hours · **0** Lab Hours

A review of Earth materials and their chemistry. Earth structure and geologic time, followed by a detailed discussion of the plate tectonic system, the hydrologic system, and their interaction in weathering and erosion, sedimentation, and landscape development. Laboratory demonstrations will include identification of earth materials, estimating plate motions, location of earthquake epicenters, flood frequency, and groundwater discharge. These classes are intended for M.A. in Interdisciplinary Science majors and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline.

### **SCIE5331 – EARTH SYSTEMS, PART II**

**3** Lecture Hours · **0** Lab Hours

A detailed discussion of the atmosphere system, oceanic systems, biologic systems, and their history. A summary discussion of the interaction of Earth Systems for an understanding of processes that have formed and continue to form the Planet Earth. Laboratory demonstrations will include weather forecasting, ocean currents, sea level change, and fossil identification. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline. Prerequisite: SCIE 5330 and admission into the M.A. in Interdisciplinary Science program.

### **SCIE5332 – EARTH RESOURCES & THE ENVIRONMENT**

**3** Lecture Hours · **0** Lab Hours



A detailed discussion of resources that support life: atmosphere, water, soil, minerals and materials, and energy; the use of those resources and the effect on the environment and global change; and the relation between population, resource distribution and availability, and environmental pollution. These classes are intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline. Prerequisite: SCIE 5330, SCIE 5331, and admission into the M.A. in Interdisciplinary Science Program.

### **SCIE5335 – LABORATORY METHODS & TECHNIQUES**

2 Lecture Hours · 2 Lab Hours

Methods and techniques used to identify minerals, rocks and fossils; maps and mapping of geological data; recognition of landslides; flood frequency and erosion processes of river and streams; location of earthquakes. These classes are intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Geology or any other College of Science discipline. Prerequisite: SCIE 5330, SCIE 5331 and admission into the M.A. in Interdisciplinary Science Program.

### **SCIE5355 – PRINCIPLES OF CHEMISTRY**

3 Lecture Hours · 0 Lab Hours

The fundamentals of atomic structure, chemical bonding, the periodic table, nomenclature, gas laws, chemical equations, and solutions. The course will be supplemented with laboratory demonstrations devoted to chemical problem-solving, library and Internet resources, chemical ethics, etc. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline.

### **SCIE5356 – PRINCIPLES OF CHEMISTRY II**

3 Lecture Hours · 0 Lab Hours

Study of advanced atomic structure and bonding concepts, acid-base theory, kinetics and equilibria, thermodynamics, electrochemistry, and the chemistry of some elements. The course will be supplemented with laboratory demonstrations devoted to chemical problem solving, library and internet resources, chemical ethics etc. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline. Prerequisite: SCIE 5355.

### **SCIE5357 – INTRODUCTORY ORGANIC & BIOCHEMISTRY**

3 Lecture Hours · 0 Lab Hours

Survey of organic and biochemistry with emphasis on application to the human body. Organic functional groups and nomenclature, organic reactions, carbohydrates, lipids, proteins, enzymes, metabolism, and nucleic acids. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline. Prerequisite: SCIE 5355, SCIE 5356.

### **SCIE5358 – LABORATORY PROBLEMS IN CHEMISTRY**

2 Lecture Hours · 2 Lab Hours

Experiments related to fundamental principles covered in SCIE (formerly CHEM) 5355 and 5356. Volumetric and gravimetric determinations and qualitative analysis. This course is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Chemistry or any other College of Science discipline. Prerequisite: SCIE 5355, SCIE 5356.

### **SCIE5371 – CELL AND MOLECULAR BIOLOGY**

3 Lecture Hours · 0 Lab Hours

The course focuses on the chemical and molecular basis of life, including metabolism, cell structure and function and genetics. This class is intended for M.A. in Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline.

### **SCIE5372 – STRUCTURE & FUNCTION OF ORGANISMS**

3 Lecture Hours · 0 Lab Hours

The study of structure and function of plants and animals. Topics to be covered include structure at the



level of the cell, tissue, organ and individual, growth, transport/circulation/gas exchange, nutrition, reproduction, development, endocrinology, and animal neural regulation. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline. Prerequisite: SCIE 5371.

### **SCIE5373 – EVOLUTION, ECOLOGY, AND BIODIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Reviews three significant aspects of organismal biology and presents current hypotheses concerning the origin and diversification of life on Earth. The ecological and behavioral interactions between organisms and their biotic/abiotic environments are considered from an evolutionary perspective. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline. Prerequisite: SCIE 5371, SCIE 5372.

### **SCIE5374 – LABORATORY PROBLEMS IN BIOLOGY**

**2** Lecture Hours · **2** Lab Hours

Laboratory experiments related to fundamental principles covered in SCIE (formerly BIOL) 5371 and 5372. This course will utilize labs designed by Master Biology Teachers. These will be supplemented by labs published by the National Association of Biology Teachers, and various biology publishers. This class is intended for M.A. in Interdisciplinary Science majors, and may not be taken for credit for the M.S. or Ph.D. degrees in Biology or any other College of Science discipline. Prerequisite: SCIE 5371, SCIE 5372.

### **SCIE5380 – MENTORED RESEARCH**

**6** Lecture Hours · **0** Lab Hours

Research under the direction of a College of Science faculty member. No more than six credit hours of SCIE 5380 may be taken for a letter grade. Prerequisite: written permission of the instructor.

### **SCIE5392 – SELECTED TOPICS IN SCIENCE**

**3** Lecture Hours · **0** Lab Hours

Topics in science not treated in the regular curriculum. Topic, format, and prerequisites to be determined by the instructor. May be repeated for credit as different topics are offered

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[School of Architecture](#)[College of Business](#)[College of Education and  
Health Professions](#)[College of Engineering](#)[College of Liberal Arts](#)[College of Nursing](#)[College of Science](#)[Biology](#)[Chemistry &  
Biochemistry](#)[Earth and Environmental  
Sciences](#)[Interdisciplinary Science](#)[Mathematics](#)[Physics](#)[Psychology](#)[School of Social Work](#)[School of Urban and Public  
Affairs](#)[Admissions Requirements &  
Procedures](#)[General Information &  
Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Mathematics

College of Science

### Chair Jianzhong Su

Web [www.uta.edu/math/](http://www.uta.edu/math/)Email [math@uta.edu](mailto:math@uta.edu)

Phone 817.272.3261

Fax 817.272.5802

478 Pickard Hall

---

### Degrees / Certificates

#### Master's Degrees

Mathematics (General Mathematics), M.S.

Mathematics (General Statistics), M.S.

Mathematics, M.A.

#### Doctoral Degrees

Mathematical Sciences, Mathematics, Ph.D.

Mathematics (General Mathematics), B.S. to Ph.D.

Mathematics (General Mathematics), Ph.D.

Mathematics (General Statistics), B.S. to Ph.D.

Mathematics (General Statistics), Ph.D.

#### Certificates

Applied Statistics Certificate

---

### Graduate Faculty

[Suvra Pal](#)[Jonghyun Yun](#)

#### Professor

[Tuncay Aktosun](#)[Benito Chen](#)[Minerva Cordero-Epperson](#)[Chien-Pai Han](#)[David Jorgensen](#)[Hristo Kojouharov](#)[Andrzej Korzeniowski](#)[Ren-Cang Li](#)[Guojun Liao](#)[Chaoqun Liu](#)[Yue Liu](#)[Merlynd Nestell](#)[Jianzhong Su](#)[Shan Sun-Mitchell](#)[Michaela Vancliff](#)

**Associate Professor**  
[Gaik Ambartsoumian](#)  
[James Epperson](#)  
[Ruth Gornet](#)  
[Dimitar Grantcharov](#)  
[Doyle Hawkins](#)  
[Theresa Jorgensen](#)  
[Barbara Shipman](#)

**Assistant Professor**  
[Yan Li](#)

---

## Graduate Advisors

**James Epperson**  
*Mathematics, M.A.*

**Hristo Kojouharov**  
*Applied Statistics Certificate*  
*Mathematical Sciences, Mathematics, Ph.D.*  
*Mathematics (General Mathematics), B.S. to Ph.D.*  
*Mathematics (General Mathematics), M.S.*  
*Mathematics (General Mathematics), Ph.D.*  
*Mathematics (General Statistics), B.S. to Ph.D.*  
*Mathematics (General Statistics), M.S.*  
*Mathematics (General Statistics), Ph.D.*

---

## Department Information

### Courses

# Department Information

## Objective

### Admissions Requirements

- **Master of Science Program**
- **Master of Arts Program**
- **Certificate of Applied Statistics Program**
- **Doctoral Program**
- **Doctoral Program (B.S.-Ph.D. track)**

### Master of Science Degree Requirements

### Master of Arts Degree Requirements

### Certificate of Applied Statistics Requirements

### Ph.D. Degree Requirements

### Ph.D. Degree Requirements for the B.S.-Ph.D. track

## Objective

The objectives of the Mathematics Department's program at the master's level are (1) to develop the student's ability to do independent research and prepare for more advanced study in

mathematics, and (2) to give advanced training to professional mathematicians, mathematics teachers, and those employed in engineering, scientific, and business areas.

Graduate work will be offered in algebra, complex and real variables, differential equations, functional analysis, geometry, mathematics education, numerical analysis, operations research, probability, statistics and topology.

## Admissions Requirements

### Master of Science Program

For unconditional admission, a student must meet the following requirements:

1. A B.A. or B.S. degree in mathematics or closely related field.
2. An overall GPA in the final 60 hours of coursework of a 3.0 or better, as calculated by the Graduate School, on a 4.0 scale.
3. Minimum of 350 on the verbal and 650 on the quantitative portions of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 143 on the verbal and 151 on the quantitative portions of the GRE if taken after August 2011.
4. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or a minimum score of 213 on a computer-based test, or a minimum score of 79 on an internet-based test) or a minimum score of 40 on the Test of Spoken English.
5. Three favorable letters of recommendation from people familiar with the applicant's academic work.

Applicants who do not satisfy requirements 2 or 3 above may be considered for unconditional admission if further review of their undergraduate transcript, recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the Master's Program without deficiency.

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

Students who are unconditionally admitted or admitted on probation will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in the last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain the fellowship.

Applicants may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Master of Arts Program

For unconditional admission a student must meet items 1-3 or 3-5.

1. A B.S. or B.A. degree with at least 24 hours of mathematics coursework with a GPA of at least 3.0, as calculated by the Graduate School on a 4.0 scale.
2. Minimum of 400 on the verbal and 600 on the quantitative portions of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 146 on the verbal

and 148 on the quantitative portions of the GRE if taken after August 2011.

3. Three favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.
4. A B.S. or B.A. degree with a GPA of at least 3.0, as calculated by the Graduate School on a 4.0 scale.
5. Certified to teach mathematics at the Secondary Level (Secondary Mathematics Certification).

Applicants who do not satisfy requirements 1 or 2 above may be considered for unconditional admission if further review of their undergraduate transcript, recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the Master's Program without deficiency.

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

Applicants may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Certificate of Applied Statistics Program

The admission standard is the same as that of Master of Science Program.

### Doctoral Program

For unconditional admission a student must meet the following requirements:

1. A master's degree or at least 30 hours of graduate coursework in mathematics or closely related fields.
2. A minimum GPA of 3.0, as calculated by the Graduate School, on a 4.0 scale in graduate coursework.
3. Minimum of 350 on the verbal and 700 on the quantitative portions of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 143 on the verbal and 155 on the quantitative portions of the GRE if taken after August 2011.
4. For applicants whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or a minimum score of 213 on a computer-based test, or a minimum score of 79 on an internet-based test) or a minimum score of 40 on the Test of Spoken English.
5. Three favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

Applicants who do not satisfy requirements 2 or 3 above may be considered for unconditional admission if further review of their undergraduate transcript, recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the Doctoral Program without deficiency.

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in the first 12 hours of graduate coursework at UT Arlington.

Applicants may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline, but who otherwise appears to meet admission requirements, may be granted provisional admission.

### Doctoral Program (B.S.-Ph.D. track)

For unconditional admission a student must meet the following requirements:

1. A bachelor's degree in mathematics or in a closely related field.
2. A minimum GPA of 3.00 on the 4.00 scale in undergraduate course work, as calculated by the UT Arlington Graduate School.
3. A minimum of 350 on the verbal part and 700 on the quantitative part of the Graduate Record Examination (GRE) if taken prior to August 2011. Minimum of 143 on the verbal and 155 on the quantitative portions of the GRE if taken after August 2011.
4. For an applicant whose native language is not English, a minimum score of 550 on the Test of English as a Foreign Language (or a minimum score of 213 on a computer-based test, or a minimum score of 79 on an internet-based test) or a minimum score of 40 on the Test of Spoken English.
5. At least three letters of recommendation from people familiar with the applicant's academic work and/or professional work.

Applicants who do not satisfy requirement 2 or/and 3 above may be considered for an unconditional admission if a further review of their undergraduate transcript(s), recommendation letters, correspondence or direct interactions with mathematics faculty, and statement of professional or research interests indicates that they are qualified to enter the B.S.-Ph.D. track program without deficiency.

If an applicant does not meet a majority of standards for an unconditional admission outlined above, he/she may be considered for a probationary admission after a careful examination of his/her application materials. A probationary admission requires that the applicant receive grades of B or better in the first 12 hours of graduate course work at UT Arlington.

An applicant may be denied admission if he/she has less than satisfactory performance on a majority of the admission criteria described above.

A deferred decision may be granted when the applicant's file is incomplete or when a denial on his/her admission is not appropriate. An applicant who is unable to supply all required documentation prior to the admission deadline but who otherwise appears to have met admission requirements may be granted provisional admission.

Students who are unconditionally admitted or admitted on probation will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in the last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain the fellowship.

### Master of Science Degree Requirements

The Department of Mathematics offers master's degree programs in mathematics with additional emphasis in applied mathematics, computer science, mathematics education, pure mathematics, and statistics. All students are to use either the thesis or thesis-substitute plan.

All students in Master of Science program must complete one of the following:

1. General Mathematics core requirements:

MATH 5300: Computer Programming and Applications

MATH 5307: Mathematical Analysis I

MATH 5308: Mathematical Analysis II

MATH 5333: Linear Algebra and Matrices

One of the following tracks:

Applied Mathematics: MATH 5350, 5351, and either 5320 or 5321

Computer Science: MATH 5338 and 5339, and either 5371 or 5373, and six approved hours in computer science engineering

Mathematics Education: Nine hours from MATH 5336, 5337, 5340-5348, 5352

Pure Mathematics: MATH 5331 (replaces MATH 5300), either 5317 or 5322, either 5332 or 5334, and either 5304 or 5326

Core requirements can also be fulfilled by completing core requirements in the BS-Ph.D. track in the Doctoral program.

2. General Statistics core requirements:

MATH 5300: Computer Programming and Applications

MATH 5307: Mathematical Analysis I

MATH 5333: Linear Algebra and Matrices

One of the following three courses:

MATH 5356: Applied Multivariate Statistical Analysis

MATH 5357: Sample Surveys

MATH 5392: Regression Analysis

MATH 5305: Statistical Methods

MATH 5312: Mathematical Statistics I

MATH 5313: Mathematical Statistics II

Core requirements can also be fulfilled by completing core requirements in the BS-Ph.D. track in the Doctoral program.

In addition:

a. Those students enrolled in the thesis substitute plan must take MATH 5395, and all except those in the computer science track must take at least nine other hours of electives.<sup>[1]</sup>

b. Those students enrolled in the thesis plan must take at least six hours of MATH 5398-5698, and all except those in the computer science track must take at least three other hours of electives.<sup>[1]</sup>

[1] Electives may not be chosen from MATH 5336, 5337, 5340-5348, 5352, 5370, 5375-5379.

Students in every degree plan must pass a final exam.

## Master of Arts Degree Requirements

The master of arts program in the Department of Mathematics is designed for those who are interested in strengthening their understanding of mathematics and enriching their mathematics teaching. The program focuses on enhancing mathematics teaching through preparation in topics grounded in secondary school mathematics from an advanced standpoint. The program embraces a philosophy of teaching and learning mathematics that is consistent with the landmark *Standards* documents produced by the National Council of Teachers of Mathematics.

The requirements for the master of arts degree are 30 hours of graduate courses from the Department of Mathematics and a 3 hour project.

All students must complete the following:

1. Required Courses (6) and Project:

MATH 5341: Concepts and Techniques in Geometry

MATH 5342: Concepts and Techniques in Algebra

MATH 5343: Concepts and Techniques in Probability and Statistics

MATH 5344: Mathematics-Specific Technologies

MATH 5345: Concepts and Techniques in Analysis



MATH 5346: Concepts and Technique in Problem Solving  
 MATH 5395: Project - Individual, Director-Approved Research

2. Elective Courses (4):

MATH 5300: Computer Programming and Applications  
 MATH 5305: Statistical Methods  
 MATH 5307: Mathematical Analysis I  
 MATH 5308: Mathematical Analysis II  
 MATH 5333: Linear Algebra and Matrices  
 MATH 5336: Concepts and Techniques in Number Theory  
 MATH 5337: Concepts and Techniques in Calculus  
 MATH 5340: Concepts and Techniques in Discrete Mathematics  
 MATH 5347: Concepts and Techniques in Modeling and Applications  
 MATH 5348: Advanced Algebra in Secondary School Mathematics  
 MATH 5352: Concepts and Techniques in Precalculus  
 MATH 5380: Seminar - Study of Current Mathematics Topics  
 MATH 5392: Selected Topics in Mathematics

## Certificate of Applied Statistics Requirements

The Certificate in Applied Statistics offers individuals with an undergraduate degree an opportunity to receive graduate instruction in applied statistics as a means of maintaining and enhancing their professional development. The certificate program will provide coursework in statistics to an individual whose undergraduate major was outside the area of statistics. Since the requirements for the certificate are substantially less than those for the Master's Degree in Mathematics with a concentration in Statistics, the certificate can be earned in a much shorter time span.

The Certificate in Applied Statistics requires that the students take and successfully complete the following courses.

1: Required Courses (2):

STATS 5312: Mathematical Statistics I  
 STATS 5313: Mathematical Statistics II

2: Electives (3 courses chosen from the following list of courses)

STATS 5305: Statistical Methods  
 STATS 5314: Experimental Design  
 STATS 5353: Applied Linear Model  
 STATS 5356: Applied Multivariate Statistical Analysis  
 STATS 5357: Sample Surveys  
 STATS 5358: Regression Analysis  
 MATH 5392: Selected Topics in Statistical Quality Control  
 MATH 5392: Selected Topics in Statistical Methods in Clinical Research

Upon completion of the 15 hours of graduate courses from lists 1 and 2 with a minimum GPA of 3.0, the student is awarded the Certificate in Applied Statistics. The expected time to completion is 1 to 2 years. The time limit for completion of the certificate program is 6 years.

## Ph.D. Degree Requirements

A dynamic program leading to the Doctor of Philosophy degree in the mathematics will aim at both real and demonstrated competency on the part of the student over material from various branches of mathematics. The Doctor of Philosophy degree in Mathematics provides a program of study that may be tailored to meet the needs of those interested in applied or academic careers. This program allows students to pursue topics ranging from traditional mathematics studies to applied mathematical problems in engineering and sciences. The nature of the dissertation will range from research in mathematics to the discovery and testing of mathematical models for analyzing given problems in engineering and sciences and in locating and developing mathematical and computational techniques for deducing the properties of these models as to solve these problems effectively and efficiently. Such dissertations will be concerned with research problems from pure mathematics, applied mathematics, mathematics education and statistics.



The Department of Mathematics offers doctoral degree programs in Mathematics (algebra, applied mathematics, geometry, mathematics education, numerical analysis and statistics).

All doctoral students must complete one of the following:

1. General MATHEMATICS core requirements:

- MATH 5308: Mathematical Analysis II
- MATH 5317: Real Analysis
- MATH 5320: Ordinary Differential Equations
- MATH 5322: Complex Variables
- MATH 5327: Functional Analysis I
- MATH 5331: Abstract Algebra I
- One of the following four courses:
  - MATH 5319: Probability Theory
  - MATH 5321: Partial Differential Equations
  - MATH 5334: Differential Geometry
  - MATH 5339: Numerical Analysis II

In addition to the mathematics core requirements, the student is required to take three area-related courses.

2. General STATISTICS core requirements:

- MATH 5308: Mathematical Analysis II
- MATH 5312: Mathematical Statistics I
- MATH 5313: Mathematical Statistics II
- MATH 5314: Experimental Design
- MATH 5317: Real Analysis
- MATH 5319: Probability Theory
- MATH 5322: Complex Variables or MATH 5327: Functional Analysis I
- MATH 5356: Applied Multivariate Statistical Analysis

In addition to the statistics core requirements, the student is also required to take two statistics courses from MATH 5311, 5318, 5353, 5354, 5357, 5358, 5359, 6353, 6356, 6357.

Students in every degree plan must pass the preliminary and comprehensive examinations.

## Ph.D. Degree Requirements for the B.S.-Ph.D. track

The student must complete either the mathematics or statistics core requirements.

1. General MATHEMATICS core requirements:

- MATH 5307: Mathematical Analysis I
- MATH 5308: Mathematical Analysis II
- MATH 5317: Real Analysis
- MATH 5320: Ordinary Differential Equations
- MATH 5322: Complex Variables
- MATH 5327: Functional Analysis I
- MATH 5331: Abstract Algebra I
- MATH 5333: Linear Algebra
- One of the following four courses:
  - MATH 5319: Probability Theory
  - MATH 5321: Partial Differential Equations
  - MATH 5334: Differential Geometry

- MATH 5339: Numerical Analysis II

In addition to the mathematics core requirements, the student is required to take three area-related courses.

2. General STATISTICS core requirements:

- MATH 5307: Mathematical Analysis I
- MATH 5308: Mathematical Analysis II
- MATH 5312: Mathematical Statistics I
- MATH 5313: Mathematical Statistics II
- MATH 5314: Experimental Design
- MATH 5317: Real Analysis
- MATH 5319: Probability Theory
- MATH 5322: Complex Variables or MATH 5327: Functional Analysis I
- MATH 5333: Linear Algebra
- MATH 5356: Applied Multivariate Statistical Analysis

In addition to the statistics core requirements, the student is also required to take two statistics courses from MATH 5311, 5318, 5353, 5354, 5357, 5358, 5359, 6353, 6356, 6357.

The requirements for the preliminary and comprehensive examinations are the same as the other tracks in the Ph.D. program.

For additional information on the mathematics program, see the program entry in the Interdepartmental and Intercampus Programs section of this catalog.

## MATH Courses

### MATH5191 – SEMINAR FOR TEACHING ASSISTANTS

0 Lecture Hours · 1 Lab Hour

This course is mandatory for all mathematics graduate teaching assistants. Students will be instructed on classroom procedures and strategies and will be required to deliver lectures under the supervision of math faculty. The purpose is to develop students to be effective lecturers. Admittance to this course is restricted to Math TAs.

### MATH5300 – INTRODUCTION TO SCIENTIFIC COMPUTING

3 Lecture Hours · 0 Lab Hours

Introduction to scientific computing utilizing algorithmic languages and operating environment such as Fortran, MATLAB, C, and C and UNIX (LINUX) operating system. Prerequisite: consent of the instructor.

### MATH5302 – FUNDAMENTALS OF MATHEMATICAL SCIENCES I

3 Lecture Hours · 0 Lab Hours

Matrices and operators, linear spaces, multivariable calculus, dynamical systems, applications. Prerequisites: MATH 3318 and 3330 or consent of the instructor.

### MATH5303 – FUNDAMENTALS OF MATHEMATICAL SCIENCES II

3 Lecture Hours · 0 Lab Hours

Wave propagation, potential theory, complex variables, transform techniques, perturbation techniques, diffusion, applications. Prerequisite: MATH 5302 or consent of the instructor.

### MATH5304 – GENERAL TOPOLOGY

3 Lecture Hours · 0 Lab Hours

Introduction to fundamentals of general topology. Topics include product spaces, the Tychonoff theorem, Tietzes Extension theorem, and metrization theorems. Prerequisite: MATH 4304 or 4335.

### **MATH5305 – STATISTICAL METHODS**

3 Lecture Hours · 0 Lab Hours

Topics include descriptive statistics, numeracy, and report writing; basic principles of experimental design and analysis; regression analysis; data analysis using the SAS package. Prerequisite: consent of the instructor.

### **MATH5307 – MATHEMATICAL ANALYSIS I**

3 Lecture Hours · 0 Lab Hours

Elements of topology, real and complex numbers, limits, continuity, and differentiation, functions of bounded variation, Riemann-Stieltjes integrals. Prerequisite: MATH 4335 or consent of Graduate Advisor.

### **MATH5308 – MATHEMATICAL ANALYSIS II**

3 Lecture Hours · 0 Lab Hours

Analysis in  $R^n$ , limits, continuity, Jacobian, extremum problems, multiple integrals, sequences and series of functions, Lebesgue integral. Prerequisite: MATH 5307 or consent of Graduate Advisor.

### **MATH5310 – MATHEMATICAL GAME THEORY**

3 Lecture Hours · 0 Lab Hours

Two person null sum games. Bimatrix games and Nash equilibrium points. Noncooperative games, existence theorem. Cooperative games, core, Shapley value, the nucleolus. Cost allocation. Market games. Simple games and voting. Prerequisite: MATH 5330.

### **MATH5311 – APPLIED PROBABILITY AND STOCHASTIC PROCESSES**

3 Lecture Hours · 0 Lab Hours

Topics include conditional expectations, law of large numbers and central limit theorem, stochastic processes, including Poisson, renewal, birth-death, and Brownian motion. Prerequisite: MATH 3313 or equivalent.

### **MATH5312 – MATHEMATICAL STATISTICS I**

3 Lecture Hours · 0 Lab Hours

Basic probability theory, random variables, expectation, probability models, generating functions, transformations of random variables, limit theory. Prerequisite: MATH 5307 or concurrent registration or consent of instructor.

### **MATH5313 – MATHEMATICAL STATISTICS II**

3 Lecture Hours · 0 Lab Hours

Theories of point estimation (minimum variance unbiased and maximum likelihood), interval estimation and hypothesis testing (Neyman-Pearson and likelihood ratio tests), regression analysis and Bayesian inference. Prerequisite: MATH/STATS 5312.

### **MATH5314 – EXPERIMENTAL DESIGN**

3 Lecture Hours · 0 Lab Hours

This course covers the classical theory and methods of experimental design, including randomization, blocking, one-way and factorial treatment structures, confounding, statistical models, analysis of variance tables and multiple comparisons procedures. Prerequisite: MATH/STATS 5305 or MATH/STATS 5355 or permission of instructor.

### **MATH5315 – GRAPH THEORY**

3 Lecture Hours · 0 Lab Hours

Algorithms for problems on graphs. Trees, spanning trees, connectedness, fundamental circuits. Eulerian graphs and Hamiltonian graphs. Graphs and vector spaces, matrices of a graph. Covering and coloring. Flows. Prerequisite: MATH 3314.

### **MATH5316 – COMBINATORIAL OPTIMIZATION**

3 Lecture Hours · 0 Lab Hours

Shortest paths. Minimum weight spanning trees and matroids. Matchings and optimal assignment. Connectivity. Flows in networks, applications. Prerequisite: MATH 3314.

### **MATH5317 – REAL ANALYSIS FOR THE MATHEMATICAL SCIENCES**

3 Lecture Hours · 0 Lab Hours

Sigma-fields, measures, measurable functions, convergence in measure and almost everywhere, integration, Fatou's Lemma, Lebesgue-dominated convergence, signed measures, Radon-Nikodym Theorem, product measures, Fubini's Theorem. Prerequisite: MATH 5308.

### **MATH5318 – FUNDAMENTALS OF STOCHASTIC ANALYSIS**

3 Lecture Hours · 0 Lab Hours

General properties of stochastic processes, processes with independent increments, martingales, limit theorems including invariance principle, Markov processes, stochastic integral, stochastic differential. Prerequisite: MATH 5308.

### **MATH5319 – PROBABILITY THEORY**

3 Lecture Hours · 0 Lab Hours

Probability spaces, random variables, filtrations, conditional expectations, martingales, strong law of large numbers, ergodic theorem, central limit theorem, Brownian motion and its properties. Prerequisite: MATH 5308.

### **MATH5320 – APPLIED DIFFERENTIAL EQUATIONS**

3 Lecture Hours · 0 Lab Hours

Fundamentals of the theory of systems of ordinary differential equations: existence, uniqueness, and continuous dependence of solutions on data; linear equations, stability theory and its applications, periodic and oscillatory solutions. Prerequisite: MATH 5307 and 5333.

### **MATH5321 – APPLIED PARTIAL DIFFERENTIAL EQUATIONS**

3 Lecture Hours · 0 Lab Hours

General first order equations. Basic linear theory for elliptic, hyperbolic, and parabolic second order equations, including existence and uniqueness for initial and boundary value problems. Prerequisites: MATH 5307 and 5333.

### **MATH5322 – COMPLEX VARIABLES I**

3 Lecture Hours · 0 Lab Hours

Fundamental theory of analytic functions, residues, conformal mapping and applications. Prerequisite: MATH 5307.

### **MATH5325 – ALGEBRAIC NUMBER THEORY**

3 Lecture Hours · 0 Lab Hours

Field extensions, number fields and number rings, ramification theory, class groups, elliptic curves and their group structure, applications to Fermat's last theorem. Prerequisite: MATH 3321.

### **MATH5326 – ALGEBRAIC TOPOLOGY**

3 Lecture Hours · 0 Lab Hours

Fundamental groups, covering space, singular homology, relative homology, Mayer-Vietoris sequence, Betti numbers, Euler characteristic. Prerequisites: MATH 3321, MATH 3335.

### **MATH5327 – FUNCTIONAL ANALYSIS I**

3 Lecture Hours · 0 Lab Hours

Introduction to Hilbert and Banach spaces: Hahn-Banach, Banach-Steinhaus, and closed graph theorems. Riesz representation theorem and bounded linear operators in Hilbert space. Prerequisite: MATH 5308.

### **MATH5328 – FUNCTIONAL ANALYSIS II**

3 Lecture Hours · 0 Lab Hours

The theory of distributions and Sobolev spaces, with applications to differential equations. Compact operators and Fredholm theory. Spectral theory for unbounded operators. Prerequisite: MATH 5327.

### **MATH5329 – HOMOLOGICAL ALGEBRA**

3 Lecture Hours · 0 Lab Hours

Projective and injective modules, projective and injective resolutions, Hom and tensor, the language of category theory, derived functors, Ext and Tor, complexes.

### **MATH5330 – ALGEBRAIC GEOMETRY**

3 Lecture Hours · 0 Lab Hours

Theory of ideals in polynomial rings, Nullstellensatz, Hilbert's basis theorem, computation in polynomial rings, affine and projective varieties, singular and smooth points on varieties. Prerequisite: MATH 4321.

### **MATH5331 – ABSTRACT ALGEBRA I**

3 Lecture Hours · 0 Lab Hours

Zorn's Lemma, groups, including free groups and dihedral groups. Rings including factorization, localization, rings of polynomials, and formal power series. An introduction to modules. Prerequisite: MATH 3321.

### **MATH5332 – ABSTRACT ALGEBRA II**

3 Lecture Hours · 0 Lab Hours

Modules, including free, projective, and injective. Exact sequences and tensor products of modules. Chain conditions, primary decomposition, Noetherian rings and modules. Prerequisite: MATH 5331.

### **MATH5333 – LINEAR ALGEBRA AND MATRICES**

3 Lecture Hours · 0 Lab Hours

Vector spaces, their sums, linear (in)dependence, bases, linear maps and their matrices, change of basis, inner-products, adjoints, diagonalization, eigenvectors and generalized eigenvectors, eigenvalues, Jordan form, characteristic and minimal polynomials, dual vector spaces, bilinear and quadratic forms. Prerequisite: MATH 3330 or consent of instructor.

### **MATH5334 – DIFFERENTIAL GEOMETRY**

3 Lecture Hours · 0 Lab Hours

Introduction to the theory of curves and surfaces in three dimensional Euclidean space. Prerequisite: MATH 4334 or 4335.

### **MATH5336 – CONCEPTS AND TECHNIQUES IN NUMBER THEORY**

3 Lecture Hours · 0 Lab Hours

Topics include mathematical induction, fundamental theorem of arithmetic, inequalities, special sequences and sums, divisibility properties, greatest common divisor, division and Euclidean algorithm, properties of congruence and Diophantine equations.

### **MATH5337 – CONCEPTS AND TECHNIQUES IN CALCULUS**

**3** Lecture Hours · **0** Lab Hours

Topics studied include limits, continuity, differentiation, integration, numerical approximations, applications and Taylor series.

### **MATH5338 – NUMERICAL ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Solution of equations including linear and nonlinear systems, interpolation and approximation, spline, numerical differentiation and quadrature. Prerequisite: MATH 2425 or consent of the instructor.

### **MATH5339 – NUMERICAL ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

Rigorous treatment of numerical aspects of linear algebra and numerical solution of ordinary differential equations, boundary value problems, introduction to numerical solution of partial differential equations. Prerequisite: MATH 5338 or consent of the instructor.

### **MATH5340 – CONCEPTS AND TECHNIQUES IN DISCRETE MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Topics include functions, mathematical induction, principles of counting, combinatorics, sequences and recurrence relations, and finite graph theory.

### **MATH5341 – CONCEPTS AND TECHNIQUES IN GEOMETRY**

**3** Lecture Hours · **0** Lab Hours

Selected materials from geometry.

### **MATH5342 – CONCEPTS AND TECHNIQUES IN ALGEBRA**

**3** Lecture Hours · **0** Lab Hours

Selected materials from algebra.

### **MATH5343 – CONCEPTS AND TECHNIQUES IN PROBABILITY AND STATISTICS**

**3** Lecture Hours · **0** Lab Hours

Consideration of (1) exploring data: descriptive statistics of situations involving one and two variables; (2) anticipating patterns: probability and simulation; (3) design of experiments and planning a study; (4) statistical inference: confirming models. Use of a graphing calculator and other appropriate technology.

### **MATH5344 – MATHEMATICS-SPECIFIC TECHNOLOGIES**

**3** Lecture Hours · **0** Lab Hours

Focus on use of current mathematics-specific technologies for enhancing mathematical understanding and mathematics teaching. May include use of Geometer's Sketchpad, Fathom, graphing calculators and computer algebra systems.

### **MATH5345 – CONCEPTS AND TECHNIQUES IN ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Selected materials from analysis including concepts and topics consistent with precalculus and elementary calculus. Prerequisite: MATH 5337 or consent of the instructor.

### **MATH5346 – CONCEPTS AND TECHNIQUES IN PROBLEM SOLVING**

**3 Lecture Hours · 0 Lab Hours**

A study of the application of various heuristics and general problem strategies in mathematics, with application to the teaching and learning of secondary school and college-level mathematics. Topics include analyzing, classifying, and modifying tasks, assessment of problem solving, and implementing problem solving in the classroom. Assignments require interaction in secondary school or college field settings.

### **MATH5347 – CONCEPTS AND TECHNIQUES IN MATHEMATICAL MODELING WITH APPLICATIONS**

**3 Lecture Hours · 0 Lab Hours**

Topics studied include algebraic, graphical, geometrical and numerical techniques to model and solve applied problems.

### **MATH5348 – ADVANCED ALGEBRA IN SECONDARY SCHOOL MATHEMATICS**

**3 Lecture Hours · 0 Lab Hours**

Major concepts of second-year algebra applied to the teaching and learning of secondary school mathematics. Topics include relations, algebraic, tabular, verbal and geometric representations of functions, transformations, including applications involving systems of equations and inequalities.

### **MATH5350 – APPLIED MATHEMATICS I**

**3 Lecture Hours · 0 Lab Hours**

Development of models arising in the natural sciences and in engineering. Emphasis will be on the mathematical techniques and theory needed to analyze such models; these include aspects of the theory of differential and integral equations, boundary value problems, theory of distributions and transforms. Prerequisites: MATH 5307 and 5333.

### **MATH5351 – APPLIED MATHEMATICS II**

**3 Lecture Hours · 0 Lab Hours**

Continuation of MATH 5350; models arising in the physical sciences whose analysis includes such topics as the theory of operators in a Hilbert space, variational principles, branching theory, perturbation and stability analysis. Prerequisite: MATH 5350.

### **MATH5352 – CONCEPTS AND TECHNIQUES IN PRECALCULUS**

**3 Lecture Hours · 0 Lab Hours**

Topics include functions (transcendental, inverse, parametric, polar, transformations), asymptotic behavior, conics, sequences, complex numbers.

### **MATH5353 – APPLIED LINEAR MODELS**

**3 Lecture Hours · 0 Lab Hours**

The course covers, at an operational level, three topics: 1) the univariate linear model, including a self-contained review of the relevant distribution theory, basic inference methods, several parameterizations for experimental design and covariate-adjustment models and applications, and power calculation; 2) the multivariate linear model, including basic inference (e.g. the four forms of test criteria and simultaneous methods), applications to repeated measures experiments and power calculation; and 3) the univariate mixed model, including a discussion of the likelihood function and its maximization, approximate likelihood inference, and applications to complex experimental designs, missing data, unbalanced data, time series observations, variance component estimation, random effects estimation, power calculation and a comparison of the mixed model's capabilities relative to those of the classical multivariate model. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis) or equivalent.

### **MATH5354 – CATEGORICAL DATA ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

This course covers classical methods for analyzing categorical data from a variety of response/factor



structures (univariate or multivariate responses, with or without multivariate factors), based on several different statistical rationales (weighted least squares, maximum likelihood and randomization-based). Included are logistic regression, multiple logit analysis, mean scores analysis, observer agreement analysis, association measures, methods for complex experimental designs with categorical responses and Poisson regression. The classical log-linear model for the association structure of multivariate responses is briefly reviewed. Randomization-based inference (e.g. Mantel-Haenzel) is discussed as well. The necessary distribution theory (multinomial, asymptotics of weighted least squares and maximum likelihood) are discussed at an operational level. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis).

### **MATH5355 – STATISTICAL THEORY FOR RESEARCH WORKERS**

**3** Lecture Hours · **0** Lab Hours

Designed for graduate students not majoring in mathematics. Topics include basic probability theory, distributions of random variables, point estimation, interval estimation, testing hypotheses, regression, and an introduction to analysis of variance. Graduate credit not given to math majors. Prerequisite: calculus math1426/math2425/math2326 or permission of instructor.

### **MATH5356 – APPLIED MULTIVARIATE STATISTICAL ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Statistical analysis for data collected in several variables, topics including sampling from multivariate normal distribution, Hotelling's  $T^2$ , multivariate analysis of variance, discriminant analysis, principal components, and factor analysis. Prerequisite: MATH/STATS 5312 or consent of instructor.

### **MATH5357 – SAMPLE SURVEYS**

**3** Lecture Hours · **0** Lab Hours

A comprehensive account of sampling theory and methods, illustrations to show methodology and practice, simple random sampling, stratified random sample, ratio estimates, regression estimates, systematic sampling, cluster sampling, and nonsampling errors. Prerequisite: MATH/STATS 5312 or consent of instructor.

### **MATH5358 – REGRESSION ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

A comprehensive course including multiple linear regression, non-linear regression and logistic regression. Emphasis is on modeling, inference, diagnostics and application to real data sets. The course begins by developing a toolbox of methods via a sequence of guided homework assignments. It culminates with projects based on consulting-level data analysis problems involving stratification, covariate adjustment and messy data sets. Some knowledge of the SAS package is required. Prerequisites: MATH/STATS 5305, basic knowledge of matrices.

### **MATH5359 – SURVIVAL ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

This course covers analysis of lifetime data, which has applications to actuarial science and health fields. Topics include the survivor function, hazard function, censoring, parametric regression models (e.g. the weibull), nonparametric regression models (e.g. the Cox proportional hazards model), categorical survival data methods, competing risks and methods for multivariate survival data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed if they have some basic calculus-based probability, such as MATH 3313).

### **MATH5361 – APPLIED CALCULUS OF VARIATION**

**3** Lecture Hours · **0** Lab Hours

Functionals, variation, extremization, Euler's equation, direct and indirect approximation methods; applications to mechanics and control theory. Prerequisite: MATH 5302.

### **MATH5362 – MATHEMATICS OF LINEAR PROGRAMMING**

**3** Lecture Hours · **0** Lab Hours



The simplex method and the revised simplex method. Linear algebra for polyhedra and polytopes. Duality theory. Sensitivity analysis. Applications to transportation problems, network flow problems, matrix-games and scheduling problems. Integer programming. Quadratic programming. Prerequisite: MATH 3330.

### **MATH5363 – OSCILLATIONS AND WAVES**

**3** Lecture Hours · **0** Lab Hours

Development of methods and results related to phenomena in nature that exhibit oscillatory motion; mathematical techniques include Fourier series, ordinary and partial differential equations, and the theory of almost periodic functions. Prerequisite: MATH 3318.

### **MATH5364 – INTRODUCTION TO MATHEMATICAL CONTROL THEORY**

**3** Lecture Hours · **0** Lab Hours

Systems in science, engineering, and economics and their mathematical description by means of functional equations (ordinary, partial, integral, delay-type). Basic properties of various classes of systems: observability, controllability, stability, and oscillating systems; optimal control problems and applications. Prerequisite: MATH 3318 or 4320.

### **MATH5365 – BIOMATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Mathematical techniques used in modeling such as perturbation theory, dimensional analysis, Fourier analysis, and differential equations. Applications to morphogenetics, population dynamics, compartmental systems, and chemical kinetics.

### **MATH5366 – INTRODUCTION TO NEURAL AND COGNITIVE MODELING**

**3** Lecture Hours · **0** Lab Hours

Principles of neural network modeling; application of these principles to the simulation of cognitive processes in both brains and machines; models of associative learning, pattern recognition, and classification. Prerequisite: consent of instructor.

### **MATH5370 – PROBLEM SOLVING IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

A study of the nature and aspects of problem solving in mathematics, with application to the teaching and learning of K-8 mathematics. Topics include deconstructing and modifying tasks, assessment of problem solving, and the roles of representation, conjecture & proof, and technology in problem solving. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5371 – APPLIED NUMERICAL LINEAR ALGEBRA**

**3** Lecture Hours · **0** Lab Hours

Numerical solutions of linear algebraic systems, least squares problems, and eigenvalue problems; LU and QR decompositions, Schur and Singular Value decompositions, Gaussian elimination, QR algorithm, and Krylov subspace iterations for large and sparse linear algebra problems. Prerequisites: MATH 3330 or consent of the instructor.

### **MATH5372 – OPTIMIZATION METHODS & NUMERICAL SOLUTIONS OF NONLINEAR EQUATIONS**

**3** Lecture Hours · **0** Lab Hours

Unconstrained and constrained optimization, solutions of nonlinear system of equations; Newton and quasi-Newton methods, secant methods and variations, nonlinear least squares problems. Prerequisite: MATH 5308 or consent of the instructor.

### **MATH5373 – NUMERICAL SOLUTION OF ORDINARY DIFFERENTIAL EQUATIONS**

**3** Lecture Hours · **0** Lab Hours

Numerical methods for approximating solutions of initial value problems, boundary value problems, including linear multistep methods, Runge-Kutta methods, shooting methods. Prerequisite: MATH 5300, 3319 or consent of instructor.

### **MATH5374 – NUMERICAL SOLUTION OF PARTIAL DIFFERENTIAL EQUATIONS**

**3** Lecture Hours · **0** Lab Hours

Numerical methods for elliptic, parabolic, hyperbolic, mixed, and systems of partial differential equations; finite difference methods, finite element methods, spectral methods. Prerequisite: MATH 5373 or consent of instructor.

### **MATH5375 – CONSTRUCTING WHOLE NUMBER AND OPERATIONS IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

A study of the interaction between the structure of place-value numeration systems and the nature of the four arithmetic operations. The development of traditional and alternative computational arithmetic algorithms from conceptual and concrete models for operations, viewed through the lens of alternative numeration systems and research on children's mathematical thinking. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5376 – CONSTRUCTING RATIONAL NUMBER AND OPERATIONS IN K-8 MATH**

**3** Lecture Hours · **0** Lab Hours

The meanings and representations of rational numbers, and the development of computations on rational numbers from algorithms for whole numbers, including concrete models for operations on fractions and decimals. Discussion of research on the learning and teaching of operations on rational numbers. Also, divisibility tests and factoring. Assignments require interaction in K-8 field settings. Prerequisite: MATH 5375.

### **MATH5377 – ALGEBRAIC THINKING IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

A study of the practice of making and justifying generalizations in K-8 mathematics, including field properties of operations, modular arithmetic (with applications to odd/even), relations and equivalence relations, the introduction and use of variables and unknowns, and the influence of representations on the form of mathematical arguments. Assignments require interaction in K-8 field settings. Prerequisite: MATH 5375.

### **MATH5378 – GEOMETRY CONCEPTS IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Major concepts of geometry applied to the teaching and learning of K-8 mathematics. Topics include dimension, development of definitions, meanings of angle, geometric comparison relations, notions of center, and non-Euclidean geometries. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5379 – MEASUREMENT CONCEPTS IN K-8 MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

The development of measurement concepts as applied to the teaching and learning of K-8 mathematics. Topics include the development and properties of standard and nonstandard units, notions of size, decomposing space, relationships between boundaries and interiors, the algebra of units, measuring time, and notions of heaviness. Assignments require interaction in K-8 field settings. Prerequisite: graduate standing.

### **MATH5380 – SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Current topics in mathematics, may be repeated for credit twice. Prerequisite: consent of instructor.

### **MATH5391 – SPECIAL TOPICS IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Topics in mathematics assigned individual students or small groups. Faculty members closely supervise the students in their research and study. In areas where there are only three hours offered, the special topics may be used by students to continue their study in the same area. Graded P/F/R. Prerequisite: permission of instructor.

### **MATH5392 – SELECTED TOPICS IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

May vary from semester to semester depending upon need and interest of the students. May be repeated for credit. Prerequisite: permission of Graduate Advisor.

### **MATH5395 – SPECIAL PROJECT**

**3** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: permission of Graduate Advisor.

### **MATH5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

5398 Graded R/F only; 5698 graded P/F/R. Prerequisite: permission of Graduate Advisor.

### **MATH5399 – RESEARCH IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Faculty directed individual study and research. May be repeated for credit. Graded P/F/R/W only. Prerequisite: permission of instructor.

### **MATH5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: permission of Graduate Advisor.

### **MATH5699 – RESEARCH IN MATHEMATICS**

**6** Lecture Hours · **0** Lab Hours

Faculty directed individual study and research. May be repeated for credit. Graded P/F/R/W only. Prerequisite: permission of instructor.

### **MATH5999 – RESEARCH IN MATHEMATICS**

**9** Lecture Hours · **0** Lab Hours

Faculty directed individual study and research. May be repeated for credit. Graded P/F/R/W only. Prerequisite: permission of instructor.

### **MATH6180 – SEMINAR FOR PROFESSIONAL DEVELOPMENT OF PHD STUDENTS IN SPECIAL PROJECTS**

**1** Lecture Hour · **0** Lab Hours

This seminar class is for Ph.D. students enrolled in special University projects. Topics include a survey of new Math, Science, Technology and Engineering advancements, Ph.D. students professional development and mentoring. Prerequisite: Prior approval of Project Director.

### **MATH6313 – TOPICS IN PROBABILITY AND STATISTICS**

**3** Lecture Hours · **0** Lab Hours

May be repeated for credit when the content changes.

### **MATH6353 – GENERALIZED LINEAR MODELS**

**3** Lecture Hours · **0** Lab Hours

This course covers modern methods for analyzing Bernoulli, multinomial and count data. It begins with a development of generalized linear model theory, including the exponential family, link function and maximum likelihood. Second is a discussion of the case of models for independent observations. Next is a discussion of models for repeated measures, based on quasi-likelihood methods. These include models (such as Markov chains) for categorical time series. Next is a treatment of models with random effects. Finally is a discussion of methods for handling missing data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed but must deal with the slightly higher mathematical level of this course.)

### **MATH6356 – TIME SERIES ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

This course covers classical methods of time series analysis, for both the time and frequency domains. For covariance stationary series, these include ARIMA modeling and spectral analysis. For nonstationary series, they include methods for detrending and filtering. Also included is a treatment of multivariate series, as well as a discussion of the Kalman filter state-space model. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and MATH/STATS 5313.

### **MATH6357 – NONPARAMETRIC STATISTICS**

**3** Lecture Hours · **0** Lab Hours

This is a survey of classical nonparametric methods for inference in standard observational settings (one-sample, two-sample, k-samples and the univariate linear model), and includes a development of U-statistics, rank statistics and their asymptotic distribution theory. The mathematical level is fairly high. Prerequisite: MATH/STATS 5313.

### **MATH6391 – SPECIAL TOPICS IN MATHEMATICS**

**3** Lecture Hours · **0** Lab Hours

Faculty directed individual study and research. May be repeated for credit when the content changes.

### **MATH6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree in mathematics.

### **MATH6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree in mathematics.

### **MATH6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Prerequisite: admission to candidacy for the Doctor of Philosophy degree in mathematics.

### **MATH7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours

may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## MSCI Courses

### MSCI6399 – DISSERTATION

3 Lecture Hours · 0 Lab Hours

### MSCI6699 – DISSERTATION

6 Lecture Hours · 0 Lab Hours

### MSCI6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

### MSCI7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## STATS Courses

### STATS5305 – STATISTICAL METHODS

3 Lecture Hours · 0 Lab Hours

Topics include descriptive statistics, numeracy, and report writing; basic principles of experimental design and analysis; regression analysis; data analysis using the SAS package. Prerequisite: consent of the instructor.

### STATS5312 – MATHEMATICAL STATISTICS I

3 Lecture Hours · 0 Lab Hours

Basic probability theory, random variables, expectation, probability models, generating functions, transformations of random variables, limit theory. Prerequisite: MATH 5307 or concurrent registration or consent of instructor.

### STATS5313 – MATHEMATICAL STATISTICS II

3 Lecture Hours · 0 Lab Hours

Theories of point estimation (minimum variance unbiased and maximum likelihood), interval estimation and hypothesis testing (Neyman-Pearson and likelihood ratio tests), regression analysis and Bayesian inference. Prerequisite: MATH/STATS 5312.

**STATS5314 – EXPERIMENTAL DESIGN****3** Lecture Hours · **0** Lab Hours

This course covers the classical theory and methods of experimental design, including randomization, blocking, one-way and factorial treatment structures, confounding, statistical models, analysis of variance tables and multiple comparisons procedures. Prerequisite: MATH/STATS 5305 or MATH/STATS 5355 or permission of instructor.

**STATS5353 – APPLIED LINEAR MODELS****3** Lecture Hours · **0** Lab Hours

The course covers, at an operational level, three topics: 1) the univariate linear model, including a self-contained review of the relevant distribution theory, basic inference methods, several parameterizations for experimental design and covariate-adjustment models and applications, and power calculation; 2) the multivariate linear model, including basic inference (e.g. the four forms of test criteria and simultaneous methods), applications to repeated measures experiments and power calculation; and 3) the univariate mixed model, including a discussion of the likelihood function and its maximization, approximate likelihood inference, and applications to complex experimental designs, missing data, unbalanced data, time series observations, variance component estimation, random effects estimation, power calculation and a comparison of the mixed model's capabilities relative to those of the classical multivariate model. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis) or equivalent.

**STATS5354 – CATEGORICAL DATA ANALYSIS****3** Lecture Hours · **0** Lab Hours

This course covers classical methods for analyzing categorical data from a variety of response/factor structures (univariate or multivariate responses, with or without multivariate factors), based on several different statistical rationales (weighted least squares, maximum likelihood and randomization-based). Included are logistic regression, multiple logit analysis, mean scores analysis, observer agreement analysis, association measures, methods for complex experimental designs with categorical responses and Poisson regression. The classical log-linear model for the association structure of multivariate responses is briefly reviewed. Randomization-based inference (e.g. Mantel-Haenzel) is discussed as well. The necessary distribution theory (multinomial, asymptotics of weighted least squares and maximum likelihood) are discussed at an operational level. Knowledge of the SAS package is required. Prerequisite: MATH/STATS 5358 (Regression Analysis).

**STATS5355 – STATISTICAL THEORY FOR RESEARCH WORKERS****3** Lecture Hours · **0** Lab Hours

Designed for graduate students not majoring in mathematics. Topics include basic probability theory, distributions of random variables, point estimation, interval estimation, testing hypotheses, regression, and an introduction to analysis of variance. Graduate credit not given to math majors. Prerequisite: calculus math1426/math2425/math2326 or permission of instructor.

**STATS5356 – APPLIED MULTIVARIATE STATISTICAL ANALYSIS****3** Lecture Hours · **0** Lab Hours

Statistical analysis for data collected in several variables, topics including sampling from multivariate normal distribution, Hotelling's  $T^2$ , multivariate analysis of variance, discriminant analysis, principal components, and factor analysis. Prerequisite: MATH/STATS 5312 or consent of instructor.

**STATS5357 – SAMPLE SURVEYS****3** Lecture Hours · **0** Lab Hours

A comprehensive account of sampling theory and methods, illustrations to show methodology and practice, simple random sampling, stratified random sample, ratio estimates, regression estimates, systematic sampling, cluster sampling, and nonsampling errors. Prerequisite: MATH/STATS 5312 or consent of instructor.

**STATS5358 – REGRESSION ANALYSIS****3** Lecture Hours · **0** Lab Hours

A comprehensive course including multiple linear regression, non-linear regression and logistic regression. Emphasis is on modeling, inference, diagnostics and application to real data sets. The course begins by developing a toolbox of methods via a sequence of guided homework assignments. It culminates with projects based on consulting-level data analysis problems involving stratification, covariate adjustment and messy data sets. Some knowledge of the SAS package is required. Prerequisites: MATH/STATS 5305, basic knowledge of matrices.

### STATS5359 – SURVIVAL ANALYSIS

3 Lecture Hours · 0 Lab Hours

This course covers analysis of lifetime data, which has applications to actuarial science and health fields. Topics include the survivor function, hazard function, censoring, parametric regression models (e.g. the weibull), nonparametric regression models (e.g. the Cox proportional hazards model), categorical survival data methods, competing risks and methods for multivariate survival data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed if they have some basic calculus-based probability, such as MATH 3313).

### STATS6353 – GENERALIZED LINEAR MODELS

3 Lecture Hours · 0 Lab Hours

This course covers modern methods for analyzing Bernoulli, multinomial and count data. It begins with a development of generalized linear model theory, including the exponential family, link function and maximum likelihood. Second is a discussion of the case of models for independent observations. Next is a discussion of models for repeated measures, based on quasi-likelihood methods. These include models (such as Markov chains) for categorical time series. Next is a treatment of models with random effects. Finally is a discussion of methods for handling missing data. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and preferably MATH/STATS 5313. (Students without 5313 can still succeed but must deal with the slightly higher mathematical level of this course.)

### STATS6356 – TIME SERIES ANALYSIS

3 Lecture Hours · 0 Lab Hours

This course covers classical methods of time series analysis, for both the time and frequency domains. For covariance stationary series, these include ARIMA modeling and spectral analysis. For nonstationary series, they include methods for detrending and filtering. Also included is a treatment of multivariate series, as well as a discussion of the Kalman filter state-space model. Knowledge of the SAS package is required. Prerequisites: MATH/STATS 5358 (Regression Analysis) and MATH/STATS 5313.

### STATS6357 – NONPARAMETRIC STATISTICS

3 Lecture Hours · 0 Lab Hours

This is a survey of classical nonparametric methods for inference in standard observational settings (one-sample, two-sample, k-samples and the univariate linear model), and includes a development of U-statistics, rank statistics and their asymptotic distribution theory. The mathematical level is fairly high. Prerequisite: MATH/STATS 5313.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
 ©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
    - Biology
    - Chemistry & Biochemistry
    - Earth and Environmental Sciences
    - Interdisciplinary Science
    - Mathematics
    - Physics
    - Psychology
  - School of Social Work
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Physics

College of Science

### Chair Alexander Weiss

Web [www.uta.edu/physics/](http://www.uta.edu/physics/)  
Phone 817.272.2266  
Fax 817.272.3637

108 Science Hall

---

### Degrees / Certificates

#### Master's Degrees

Physics, M.S.

#### Doctoral Degrees

Physics and Applied Physics, B.S. to Ph.D.  
Physics and Applied Physics, Ph.D.

---

### Graduate Faculty

[Jonathan Asaadi](#)  
[Matthew Benacquista](#)  
[Haleh Hadavand](#)  
[Fredrick Jenet](#)  
[Mingwu Jin](#)  
[Benjamin Jones](#)  
[Soma Mukherjee](#)  
[David Nygren](#)  
[Malik Rakhmanov](#)  
[Joseph Romano](#)

#### Professor

[Andrew Brandt](#)  
[Manfred Cuntz](#)  
[Kaushik De](#)  
[John Fry](#)  
[Ali Koymen](#)  
[Ping Liu](#)  
[Ramon Lopez](#)  
[Zdzislaw Musielak](#)  
[Asok Ray](#)  
[Roy Rubins](#)  
[Suresh Sharma](#)  
[Alexander Weiss](#)  
[Andrew White](#)  
[Jaehoon Yu](#)  
[Qiming Zhang](#)

#### Associate Professor



**Wei Chen**  
**Nail Fazleev**

**Assistant Professor**

**Yue Deng**  
**Amir Farbin**  
**Muhammad Huda**  
**Christopher Jackson**  
**Samarendra Mohanty**  
**Joseph Ngai**  
**Sangwook Park**

---

## Graduate Advisors

**Stacey Cody**

*Physics and Applied Physics, B.S. to Ph.D.*  
*Physics and Applied Physics, Ph.D.*

**Qiming Zhang**

*Physics, M.S.*

---

## Department Information

### Courses

# Department Information

### Objective

#### Admission Criteria

- **Master of Science Program**
- **Doctor of Philosophy Program**
- **Probationary Admission**
- **Deferred and Provisional Admission**
- **Denial of Admission**
- **Scholarships and Fellowships**

#### Degree Requirements: Master of Science

#### Degree Requirements: Doctor of Philosophy

### Objective

The objective of graduate work in physics is to prepare the student for continued professional and scholarly development as a physicist. The Physics MS Degree Programs are designed to give the student advanced training in all fundamental areas of physics through formal courses and the options of some degree of specialization or participation in original research in one of a variety of projects directed by the faculty.

The Doctor of Philosophy in Physics and Applied Physics Program combines the traditional elements of a science doctoral program with courses in specifically applied topics and internship in a technological environment. It is designed to produce highly trained professionals with a broad perspective of the subject which may prepare them equally well for careers in academia or government or industry. Current research in the department is predominantly in the areas of condensed matter physics, materials science, astro physics, space physics and high-energy

physics and includes a wide range of theoretical work in solid state physics and experimentation in laser physics, optics, positron physics, nano-bio physics, solid state and surface physics, and high-energy physics.

## Admission Criteria

### Master of Science Program

For unconditional admission to the Master of Science program in physics, the candidate must satisfy the general admission requirements of the Graduate School, including a minimum undergraduate GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School and favorable letters of recommendation from individuals able to assess the applicant's potential for success in a Masters program. In addition, the candidate should have satisfactorily completed at least 24 undergraduate hours of advanced physics and supporting courses and should have minimal GRE scores of 350 in Verbal, and 650 in Quantitative.

### Doctor of Philosophy Program

For unconditional admission to the Doctor of Philosophy program, an applicant must have a master's degree or 30 semester hours of graduate credit in physics or a related field and satisfy the general admission requirements of the Graduate School, including a minimum graduate coursework GPA of 3.0 on a 4.0 scale, as calculated by the Graduate School and favorable letters of recommendation from individuals able to assess the applicant's potential for success in a Ph.D. program. In addition, the applicant should have minimal GRE scores of 350 in Verbal, and 650 in Quantitative.

Applicants not meeting the minimum requirements of the department or the Graduate School for either program may still be considered for unconditional acceptance if other information in their application indicates a reasonable probability of success in graduate studies in physics.

### Probationary Admission

If an applicant does not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

### Deferred and Provisional Admission

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### Denial of Admission

A candidate may be denied admission if he or she have less than satisfactory performance on the admission criteria described above.

### Scholarships and Fellowships

Students who are admitted will be eligible for available scholarship and/or fellowship support. Award of scholarships or fellowships will be based on consideration of the same criteria utilized in admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the Fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

## Degree Requirements: Master of Science

A minimum of 30 hours is required for the Master of Science degree, of which 24 hours, including

a six hour thesis (minimum registration), will be in physics, and six hours may be selected from physics, mathematics, chemistry, earth & environmental sciences, biology, or engineering as approved by the Graduate Advisor.

## Degree Requirements: Doctor of Philosophy

Each candidate must complete the following program requirements:

1. Demonstration of competence in a minimum of 39 credit hours of core courses chosen under the guidance of the supervising committee from the following (or from courses approved in advance by the Graduate Studies Committee):

Traditional core courses:

PHYS 5306 Classical Mechanics

PHYS 5307, 5308 Quantum Mechanics I, II

PHYS 5309, 5313 Electromagnetic Theory I, II

PHYS 5310 Statistical Mechanics

PHYS 5311, 5312 Mathematical Methods in Physics I, II

PHYS 5315, 5316 Solid State I, II

Applied Physics core courses:

PHYS 5314 Advanced Optics

PHYS 5319 Mathematical Methods in Physics III

PHYS 6301, 6302, 6303 Methods of Applied Physics I, II, III

Computer Science as required by the supervising committee.

2. Dissertation and additional research and elective courses chosen under the guidance of the supervising committee.

## PHYS Courses

### PHYS5193 – READINGS IN PHYSICS

1 Lecture Hour · 0 Lab Hours

Conference course. May be repeated for credit.

### PHYS5194 – RESEARCH IN PHYSICS

1 Lecture Hour · 0 Lab Hours

Conference course with laboratory. May be repeated for credit.

### PHYS5294 – RESEARCH IN PHYSICS

2 Lecture Hours · 0 Lab Hours

Conference course with laboratory. May be repeated for credit.

### PHYS5305 – CHAOS AND NONLINEAR DYNAMICS

3 Lecture Hours · 0 Lab Hours

Introduction to basic principles and concepts of chaos theory and their applications in diverse fields of research. Topics include chaotic and non-chaotic systems, stability analysis and attractors, bifurcation theory, routes to chaos and universality in chaos, iterated maps, Lyapunov exponents, fractal dimensions, multifractals, hamiltonian chaos, quantum chaos, controlling chaos, self-organized systems, and theory of complexity.

### PHYS5306 – CLASSICAL MECHANICS

3 Lecture Hours · 0 Lab Hours

General principles of analytical mechanics, the kinematics of rigid bodies, canonical transformation, Hamilton-Jacobi theory.

### **PHYS5307 – QUANTUM MECHANICS I**

3 Lecture Hours · 0 Lab Hours

Matrix formulation, theory of radiation, angular momentum, perturbation methods.

### **PHYS5308 – QUANTUM MECHANICS II**

3 Lecture Hours · 0 Lab Hours

Approximate methods, symmetry and unitary groups, scattering theory.

### **PHYS5309 – ELECTROMAGNETIC THEORY I**

3 Lecture Hours · 0 Lab Hours

Boundary value problems in electrostatics and magnetostatics, Maxwell's equations.

### **PHYS5310 – STATISTICAL MECHANICS**

3 Lecture Hours · 0 Lab Hours

Fundamental principles of statistical mechanics, Liouville theorem, entropy, Fermi-Dirac distribution, Bose-Einstein distribution, Einstein condensation, density matrix, quantum statistical mechanics, kinetic methods, and transport theory.

### **PHYS5311 – MATHEMATICAL METHODS IN PHYSICS I**

3 Lecture Hours · 0 Lab Hours

Algebraic and analytical methods used in modern physics. Algebra: matrices, groups, and tensors, with application to quantum mechanics, the solid state, and special relativity. Analysis: vector calculus, ordinary and partial differential equations, with applications to electromagnetic and seismic wave propagation.

### **PHYS5312 – MATHEMATICAL METHODS IN PHYSICS II**

3 Lecture Hours · 0 Lab Hours

Continuation of PHYS 5311 with a selection from the following topics. Algebra: matrix representations of the symmetric and point groups of solid state physics, matrix representations of the continuous groups  $O(3)$ ,  $SU(2)$ ,  $SU(3)$ ,  $SL(2,C)$ , general covariance. Analysis: further study of analytic functions, Cauchy's theorem, Green's function techniques, orthogonal functions, integral equations.

### **PHYS5313 – ELECTROMAGNETIC THEORY II**

3 Lecture Hours · 0 Lab Hours

Modern tensorial treatment of classical electrodynamics, force on and field of a moving charge, derivation and application of 4-vector potential, Maxwell's equations in tensor form, field momentum and radiation.

### **PHYS5314 – ADVANCED OPTICS**

3 Lecture Hours · 0 Lab Hours

Electromagnetic wave equations, theory of diffraction, radiation scattering and dispersion, coherence and laser optics. Additional advanced topics of current interest.

### **PHYS5315 – SOLID STATE I**

3 Lecture Hours · 0 Lab Hours

Crystal structure, lattice vibration, thermal properties, and band theory of solids.

### **PHYS5316 – SOLID STATE II**

3 Lecture Hours · 0 Lab Hours

Electrical and magnetic properties of crystalline solids, magnetic resonance, and optical phenomena.

### **PHYS5317 – STATISTICAL MECHANICS II**

**3** Lecture Hours · **0** Lab Hours

Methods in applied statistical mechanics. Topics may include fluctuations and critical phenomena, the Ising model, the master equation, transport in solids, and chaos.

### **PHYS5319 – MATHEMATICAL METHODS IN PHYSICS III**

**3** Lecture Hours · **0** Lab Hours

Numerical methods for applied physics; computer techniques, numerical differentiation, integration, interpolation, extrapolation; differential equations, integral equations, statistical analysis; scientific computer library; artificial intelligence programming.

### **PHYS5320 – QUANTUM MECHANICS III**

**3** Lecture Hours · **0** Lab Hours

Quantum theory of radiation; relativistic equations; elements of quantum field theory; symmetries and gauge theories. Applications in elementary particle physics and solid-state physics.

### **PHYS5325 – INTRODUCTION TO ELEMENTARY PARTICLES I**

**3** Lecture Hours · **0** Lab Hours

An overview of particles and forces. Particle detectors and accelerators. Invariance principles and conservation laws. Standard model. Electromagnetic, weak, strong, and unified interactions.

### **PHYS5326 – INTRODUCTION TO ELEMENTARY PARTICLE PHYSICS II**

**3** Lecture Hours · **0** Lab Hours

Systematics of the quark model; the fundamental interactions of elementary particles; spin and relativistic kinematics; Dirac Equation; the standard electroweak model.

### **PHYS5328 – SURFACE PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Experimental and theoretical methods for the study of solid surfaces. Geometric and electronic structure of metals and semiconductors. Surfaces as model systems of reduced dimensionality. Adsorption phenomena and film growth.

### **PHYS5330 – PHYSICS OF SEMICONDUCTOR PROCESSING AND CHARACTERIZATION**

**3** Lecture Hours · **0** Lab Hours

Selection from the following topics: physics of crystal growth, lattice defects, impurity diffusion, ion-implantation, thin film growth and plasma etching. Physics of characterization techniques utilizing resistivity, carrier mobility and lifetimes, electrons, x-rays, ions, Rutherford backscattering, neutron activation analysis, positron annihilation spectroscopy, deep-level transient spectroscopy.

### **PHYS5381 – MECHANICS & HEAT FOR TEACHERS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Topics include: 1) Newton's laws of motion, gravitation, and planetary motion; 2) the basic laws of thermal and statistical physics; 3) oscillatory motion including waves and sound. Replaceable experiments will be demonstrated throughout the course.

### **PHYS5382 – ELECTROMAGNETISM FOR TEACHERS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Topics include: 1) Static charges, current flow, electric and magnetic fields; 2) simple DC/AC electrical circuits including examples from

household circuit and practical electronic devices; 3) light and optics including examples such as cameras, microscopes and telescopes. Replaceable experiments will be demonstrated throughout the course.

### **PHYS5383 – MODERN PHYSICS FOR TEACHERS**

**3** Lecture Hours · **0** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Topics include: 1) Introduction to special relativity and quantum theory; 2) light and radiation; 3) applications to modern electrical devices; 4) nuclear and particle physics.

### **PHYS5385 – PHYSICS LAB TECHNIQUES FOR TEACHERS**

**0** Lecture Hours · **3** Lab Hours

This course is intended for students who wish to achieve a higher level of knowledge and effectiveness in fundamental physics (not available for M.S. or Ph.D. credit in Physics). Experiments demonstrating various topics are covered. Experiments include gravitational acceleration heat flow, harmonic motion, sound, electric magnetic fields, electric circuits, optic, x-rays and nuclear radiation.

### **PHYS5391 – SPECIAL TOPICS IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Topics in physics, particularly from areas in which active research is being conducted, are assigned to individuals or small groups for intensive investigations. May be repeated for credit.

### **PHYS5393 – READINGS IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Conference course. May be repeated for credit.

### **PHYS5394 – RESEARCH IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Conference course with laboratory. May be repeated for credit.

### **PHYS5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

### **PHYS5694 – RESEARCH IN PHYSICS**

**6** Lecture Hours · **0** Lab Hours

Conference course with laboratory. May be repeated for credit.

### **PHYS5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

### **PHYS6301 – METHODS OF APPLIED PHYSICS I--ELECTRONICS**

**3** Lecture Hours · **0** Lab Hours

The analysis and design of electronic circuits for use in the laboratory. Transistors and integrated circuits in analog instrumentation. Digital logic. Information theory and signal processing.

### **PHYS6302 – METHODS OF APPLIED PHYSICS II--COMPUTERS IN PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Applications of computers in physics. Acquisition and analysis of experimental data. Vector and parallel processing, image processing, simulation.

### **PHYS6303 – METHODS OF APPLIED PHYSICS III--SPECTROSCOPY**

**3** Lecture Hours · **0** Lab Hours

The principles (interactions, cross-sections, elastic and inelastic scattering, diffraction, coherence), the methodologies (sources, detectors, visualization), and applications (structure, dynamics, composition, excitations) of neutral and charged particle spectroscopies to condensed matter physics and materials science.

### **PHYS6304 – APPLIED PHYSICS INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Applied physics and engineering research and training in industry or other science or engineering departments of U.T. Arlington or other institutions requiring applied physicists. Faculty supervision and submission of technical progress reports required.

### **PHYS6391 – SELECTED TOPICS IN APPLIED PHYSICS**

**3** Lecture Hours · **0** Lab Hours

Topics chosen from research areas in the Department of Physics or at one of the institutions or corporations participating in the traineeship program in applied physics; emphasis on industrial and engineering applications. May be repeated for credit.

### **PHYS6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

### **PHYS6604 – APPLIED PHYSICS INTERNSHIP**

**6** Lecture Hours · **0** Lab Hours

Applied physics and engineering research and training in industry or other science or engineering departments of U.T. Arlington or other institutions requiring applied physicists. Faculty supervision and submission of technical progress reports required.

### **PHYS6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

### **PHYS6904 – APPLIED PHYSICS INTERNSHIP**

**9** Lecture Hours · **0** Lab Hours

Applied physics and engineering research and training in industry or other science or engineering departments of U.T. Arlington or other institutions requiring applied physicists. Faculty supervision and submission of technical progress reports required.

### **PHYS6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

### **PHYS7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's

degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[College of Nursing](#)

[College of Science](#)

[Biology](#)

[Chemistry &  
Biochemistry](#)

[Earth and Environmental  
Sciences](#)

[Interdisciplinary Science](#)

[Mathematics](#)

[Physics](#)

[Psychology](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Psychology

College of Science

### Chair Perry Fuchs

Web [www.uta.edu/psychology/](http://www.uta.edu/psychology/)

Phone 817.272.2281

Fax 817.272.2364

[320 Life Science Bldg](#)

---

### Degrees / Certificates

#### Master's Degrees

Psychology, Experimental, M.S.

Psychology, Health/Neuroscience, M.S.

Psychology, Industrial and Organizational, M.S.

#### Doctoral Degrees

Psychology, Experimental, Health, Ph.D.

Psychology, Experimental, Ph.D.

Psychology, Health/Neuroscience, Ph.D.

---

### Graduate Faculty

[Angela Liegey-Dougall](#)

[Qing Lin](#)

[Kelsey Medeiros](#)

[Pablo Mora](#)

[Craig Nagoshi](#)

[Heekyeong Park](#)

[Amber Schroeder](#)

[Shannon Scielzo](#)

[Karen Twohey](#)

#### Assistant Professor in Practice

[Nicolette Lopez](#)

#### Professor

[Robert Gatchel](#)

[William Ickes](#)

[Daniel Levine](#)

[Roger Mellgren](#)

[Paul Paulus](#)

#### Associate Professor

[Perry Fuchs](#)

[Lauri Jensen-Campbell](#)

[Jared Kenworthy](#)

[Martha Mann](#)

[Yuan Peng](#)

**Assistant Professor**

**Jeffrey Gagne**  
**Linda Perrotti**

**Professor Emeritus**

**Verne Cox**

---

**Graduate Advisors**

**Jared Kenworthy**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*

**Maria Levings**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

**Paul Paulus**

*Psychology, Industrial and Organizational, M.S.*

**Yuan Peng**

*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*

**Sarah Watson**

*Psychology, Experimental, Health, Ph.D.*  
*Psychology, Experimental, M.S.*  
*Psychology, Experimental, Ph.D.*  
*Psychology, Health/Neuroscience, M.S.*  
*Psychology, Health/Neuroscience, Ph.D.*  
*Psychology, Industrial and Organizational, M.S.*

---

**Department Information**

**Courses**

**Department Information**

**Objective**

**Admissions Criteria**

- **Probationary Admission**
- **Deferred Admission**
- **Provisional Admission**
- **Denial of Admission**
- **Eligibility for Scholarships/Fellowships**

**Degree Requirements**

- **Master of Science Degree**
- **Doctor of Philosophy**

**Objective**

The objective of graduate work in psychology is to educate the student in the methods and basic content of the discipline and to provide an apprenticeship in the execution of creative research.

Graduate work in the master's program and doctoral program will be offered in psychology. Students' individual programs of work may be arranged to give emphasis to a particular aspect of the general program.

Within this framework, options include, but are not limited to, Animal Behavior and Animal Learning, Cognition and Perception, Developmental, Health Psychology and Neuroscience, Industrial/Organizational, Behavioral Neuroscience, and Social-Personality Psychology. Students specializing in Cognition and Perception may include, in addition to their area C courses (described below), advanced topical seminars in their area of specialty. In addition to core courses (see area A) for those interested in Behavioral Neuroscience, seminars offered in the recent past include Aggression and Nociception. For those seeking expertise in the Social-Personality area, in addition to the area B courses, seminars have included topics such as Social Influence and Empathetic Accuracy and Intersubjectivity.

**Research Involvement**-Since the Department of Psychology believes that graduate training should involve the student continuously in the research process; students are encouraged to make personal contacts by letter or e-mail with faculty members of their choice. A description of the faculty and their areas of research may be obtained by consulting the department Web page at [www.uta.edu/psychology](http://www.uta.edu/psychology) or by writing to or calling the department at 817.272.2281. Every effort will be made to assign the incoming student to a faculty member of choice, but priority is given to those who have discussed their placement in advance.

**Deadline for Financial Aid Applications**-Students who wish to be considered for assistantships should have their applications and departmental forms sent to The University of Texas at Arlington by February 1 for the fall Semester and September 1 for the spring Semester. Students who do not desire financial aid may apply at any time up to the deadline listed by the Graduate School.

## Admissions Criteria

There are no fixed criteria for admission to the M.S. or Ph.D. programs in Psychology. Of course, the student is expected to have successfully completed the appropriate work prior to admission. In the case of the M.S. program, an undergraduate B.A. or B.S. degree is required. As calculated by the graduate school, a minimum grade point average of 3.0 (on a 4.0 scale) in undergraduate work is expected for unconditional admission. For the Ph.D., a minimum of 30 graduate hours with a GPA of 3.0 or better as calculated by the Graduate School is required.

Although we typically require at least a 3.0 average for unconditional admission, an average higher than 3.0 will not guarantee admission. Beyond these minimal criteria, there is no single criterion that determines whether a positive or negative admission decision is made.

Our admissions focus is on seeking positive indication of potential success in the program. These indications include:

1. A detailed examination of the student's transcript. Overall grade point average per se is not weighed as heavily as other grade indicants (e.g., grades in psychology) since most candidates for admission present averages greater than 3.0. Instead, we examine the coursework as evidence for research interest. Positive indicants of potential success in our program include greater than average work in psychology, the biological and physical sciences and mathematics. In similar fashion, evidence of experimental research previously undertaken is viewed as a predictor of future research. For students interested in specialization in Industrial/Organizational (I/O) Psychology at the Master's level appropriate coursework is taken into consideration.
2. Submission of Verbal, Quantitative and Analytical Writing GRE scores is required of all applicants including UT Arlington alumni. High GRE scores in each area are viewed as positive indicants, while a low GRE score on one subscale need not exclude a candidate who shows positive indicants in other areas.
3. At least three letters of reference are required and will be used as evidence of strong

commitment to experimental research (as in letters from an undergraduate research sponsor). We would prefer, if possible, letters from individuals such as your professors, who can comment on your academic abilities and potential. Evidence of success in employment relevant to I/O psychology will be considered for the Master's degree in that area.

4. The personal statement describing the applicant's laboratory, field, or applied interests, career plans and discussion of how the UT Arlington program can serve to further these interests and plans will be examined for evidence of the appropriateness of the candidate to the UT Arlington program.
5. Successful completion of a Master's degree in another department is viewed positively even when the degree was received in an area outside of psychology. In this latter case, some conditions in terms of make-up coursework may be specified.
6. As the expectation is that students will begin research in their first semester, they will be assigned a faculty member with whom they will work. This assignment will be based on space available in the student's program of interest and the fit of student to specific faculty's research interests. Since each area has its own criteria for admission, undergraduate interests deemed unsuitable by one faculty committee may be acceptable to another. The number of fully acceptable applicants generally exceeds the number admitted.

In summary the department views its mission in the MS/Ph.D program as to train students to be skillful in research. Therefore we seek students who show aptitude in as well as motivation for research. Students interested in the terminal MS program in Industrial/Organizational Psychology will have their records examined for indicants of potential to succeed in industrial settings.

### **Probationary Admission**

If an applicant does not have a majority of the positive indications for unconditional admission described above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission requires that the applicant receive a B or better in their first 12 hours of graduate coursework at UT Arlington.

### **Deferred Admission**

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### **Provisional Admission**

An applicant unable to supply all documentation (including certified transcripts, GRE scores, letters of reference, and personal statements) prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### **Denial of Admission**

Applicants whose records in the aggregate do not show sufficient positive indications of potential success will be denied admission.

### **Eligibility for Scholarships/Fellowships**

Students unconditionally admitted to the program are eligible for scholarship and fellowship support. The criteria applied will be the same as those applied to admission decisions. To be eligible, candidates must be new students coming to UT Arlington in the fall semester, must have a GPA of 3.0 in their last 60 undergraduate credit hours plus any graduate credit hours as calculated by the Graduate School, and must be enrolled in a minimum of 6 hours of coursework in both long semesters to retain their fellowships.

### **Degree Requirements**

In addition to the requirements outlined elsewhere, the Department of Psychology will require

undergraduate courses in statistics and in experimental methods. These courses may be taken as deficiency courses.

Degree requirements for the Department of Psychology are established by the Committee on Graduate Studies in Psychology and supplement those established by the University (see general requirements of the Graduate School as stated under the section entitled "Admission Requirements and Procedures").

Each entering graduate student will be furnished a copy of the departmental rules which will serve as guidelines for departmental actions and recommendations. Students are urged to consult the Department of Psychology's [Graduate Student Handbook](#) to obtain the most up-to-date information on department policies and practices that may impact their degree plans.

Each student must adhere to the code of ethics of the American Psychological Association.

## Master of Science Degree

As soon as is feasible, a student should decide on an area for specialization and research. After discussion with and consent of the involved faculty members, the student selects a supervising professor and a thesis committee. No student may enroll in PSYC 5698 until the thesis committee has approved a proposal for the thesis project.

**Specialization in Experimental Psychology** 30 hours, including six hours of thesis are required for this option. The program is designed to form the basis for the doctoral program. It is, however, open to those seeking a terminal master's degree. PSYC 5405, 5407, and 12 hours among 5313, 5321, 5322, 5333, 5345, and 6336 are required, including at least three hours from each area A, B, and C (see following).

**Specialization in Health Psychology:** 30 hours in psychology, including six hours of thesis are required for this option. The program is designed to form the foundational work for the doctoral program. Students are required to complete the statistics sequence in the department (PSYC 5405, 5407) and core courses in research methods (PSYC 5307), health psychology (PSYC 5309, and learning (PSYC 5313, 5314, 5345 or 6312) and at least one biological foundations course (PSYC 5333). In addition, students should enroll in PSYC 6102, Proseminar in Health Psychology, each long semester of graduate study. Please see the department's Graduate Handbook for suggested course sequences and degree plans. As for the experimental psychology specialization, thesis research and document are also required.

**Specialization in Health Psychology and Neuroscience:** 30 hours in psychology, including six hours of thesis are required for this option. The program is designed to form the foundational work for the doctoral program. Students are required to complete the statistics sequence in the department (PSYC 5405, 5407) and core courses in research methods (PSYC 5307), health psychology (PSYC 5309, and learning (PSYC 5313, 5314, 5345 or 6312) and at least one biological foundations course (PSYC 5333). In addition, students should enroll in PSYC 6101, Proseminar in Health Psychology, each long semester of graduate study. Please see the department's Graduate Handbook for suggested course sequences and degree plans. As for the experimental psychology specialization, thesis research and document are also required.

**Specialization in industrial/organizational (I/O) psychology:** 44 hours (47 with thesis option) in psychology are required for this degree. The program offers both a thesis and a non-thesis option; however, students pursuing applied careers are expected to complete the non-thesis route. All students in the program will be required to conduct research related to I/O psychology. Required psychology courses include PSYC 5405, 5407, 5322, 5323, 5324, 5325, 5326, 5328, 5329, 6349, one approved management elective, and six hours of internship (Psyc 5327). Students typically complete their thesis or non-thesis option (Individual Research) at the end of their second year.

A typical program of study looks like this:

Year	Fall	Spring
01	(4) - Psyc 5405 Adv. Statistics I	(4) - Psyc 5407 Adv. Statistics II

(3) - Psyc 5325 Organizational Behavior <sup>A</sup> or Psyc 5328 Employee Attitudes and Behavior <sup>B</sup>	(3) - Psyc 5326 Employee Selection <sup>B</sup> or Psyc 5329 Performance Mgmt. Systems <sup>A</sup>
(3) - Psyc 5322 Social Psychology	(3) - Psyc 5327 Internship
10	(3) - Psyc 5323 Group Processes <sup>B</sup> or Management Elective <sup>A</sup>
	13

<b>02</b> (3) - Psyc 5324 Applied Research Design	(3) - Psyc 5326 Employee Selection <sup>A</sup> or Psyc 5329 Performance Mgmt. Systems <sup>B</sup>
(3) - Psyc 5325 Organizational Behavior <sup>B</sup> or Psyc 5328 Employee Attitudes and Behavior <sup>A</sup>	(3) - Psyc 5323 Group Processes <sup>A</sup> or Psyc 6349 Psychometrics <sup>B</sup>
(3) - Psyc 6349 Psychometrics	Psyc 6349 Psychometrics <sup>B</sup>
9	(3) - Psyc 5327 Internship
	(6) - Thesis or (3) Individual Research
	15 or 12

Students who begin the I/O psychology program in odd numbered years (for example 2013, 2015) will take the courses marked with a Superscript "A" in the sequence presented.

Students who begin the I/O psychology program in even numbered years (for example 2012, 2014) will take the courses marked with a Superscript "B" in the sequence presented.

### Doctor of Philosophy

The degree of Doctor of Philosophy in psychology requires distinguished attainments in both scholarship and original research, and the deep understanding of the strategic role of thoughtful experimentation in the development of an empirical science. Although the student must meet the minimum requirements of a planned course of study, the ultimate basis for conferring the degree must be the demonstrated ability to do independent and creative work and the exhibition of a profound grasp of the subject matter of the field.

**Computer Knowledge Requirement:** Because of the fundamental and varied ways in which computers are applied in psychology, students are expected to understand their use and application in psychological research. Specifically, students are expected to demonstrate competence in the use of operating systems such as Windows or the Macintosh System, e-mail and other aspects of the Internet, standard office packages, data bases, programming languages (with specific reference to the programming of psychological experiments) and statistical packages such as SAS and SPSS. This computer knowledge requirement has been established in lieu of the foreign language requirement.

### Specialization in Experimental Psychology

The specialization in experimental psychology allows students to work in a general experimental context while specializing in one of several areas (e.g., cognitive psychology, social psychology, industrial/organizational, and so on).

Course requirements: Graduate students entering the experimental specialization will be required to take the following courses during their first four semesters of enrollment. Exceptions may be made only with written permission of the Committee on Graduate Studies.

Professional Development (5110 and 5112)  
Statistics I (5405)  
Statistics II (5407)



Four of the following courses, at least one from each area A, B, and C:  
 Area A: 5333 Behavioral Neuroscience, 6336 Comparative Psychology  
 Area B: 5321 Personality, 5322 Social Psychology  
 Area C: 5313 Higher Mental Processes, 5345 Human Learning and Memory

Experimental psychology students also have the option of taking PSYC 5309 - Health Psychology for the fourth core course.

Students with prior graduate work may be waived from any of the above requirements by a written request to the Committee on Graduate Studies. The request should include a syllabus or other documentation showing that a prior course and one of our required courses are equivalent. Students should discuss course equivalency with the professor(s) who teach the course(s) in question before submitting a request. Having fulfilled the above, the following are required:

1. An additional five courses (15 hours) from among lecture courses.
2. Two six-hour research courses. These may be taken from PSYC 5698 or PSYC 5600. Students who plan to obtain the MS should elect PSYC 5698 as one of the research courses and students who do not plan to obtain the MS should select two sections of PSYC 5600. If the student does not elect to obtain the MS, one of the research courses must result in a formal thesis-equivalent paper, which will be evaluated by a committee and defended in an oral examination. The two research courses are a minimum requirement. Students are strongly encouraged to take PSYC 5391 or 6391 before taking PSYC 5600 and PSYC 5698.
3. Nine hours of PSYC 6300.
4. Additional hours of coursework to be determined by the Graduate Advisor and dissertation committee. The student should plan to take approximately 86 hours including 6999. At least 45 of these hours must be in organized courses, lectures or seminars. No student may enroll in a dissertation course until the dissertation committee has approved a proposal for the dissertation project.

A student has completed the course requirements when he or she has:

1. Maintained at least a B average in 5405 and 5407.
2. Maintained at least a B average in his or her area core courses.
3. Received at least a B average in all other courses.

A typical program of study might look like this:

Year	Fall	Spring
01	Statistics I, an A, B or C core course, Professional Development I, Readings and/or Research elective	Statistics II, an A, B or C core course, Professional Development II, Readings and/or Research elective
02	An A, B, or C core course, Seminar, Lecture Electives and/or Thesis	An A, B, or C core course, Seminar, Lecture Electives and/or Thesis
03	Lecture Electives and/or Thesis, Seminar, Readings and/or Research elective	Lecture Electives and/or Seminar, Readings and/or Research elective
04	Lecture Electives and/or Thesis, Seminar, Readings and/or Research elective Dissertation Research	Lecture Electives and/or Thesis, Seminar, Readings and/or Research elective Dissertation Research
05	Dissertation Research	Dissertation Research

Note: This is based on a 5-year program of study. Students may adjust the speed at which milestones are achieved by adding 4th year courses earlier.

#### Prerequisite Conditions for the Qualifying Examination

In order to begin working on the qualifying exam, students must complete the Departmental MS Core Curriculum requirements as set forth elsewhere in the catalog. Generally, these course requirements will be met within the first two years of graduate enrollment. Students must also satisfactorily participate in the Research Progress Symposium (RPS). Finally, a Master's Thesis (or equivalent) must be completed. Students entering the program with a master's degree must

complete the Departmental MS Core Curriculum requirements and satisfactorily participate in the RPS before being invited to begin work on the Qualifying Examination. Upon completion of these prerequisite conditions, students have one year to complete their Qualifying Examination. This process consists of a Major Area Paper (MAP) and an oral defense, both of which must be completed within one year.

#### MAP and MAP Oral Defense

The MAP consists of a comprehensive review paper, which is a summary, integration, and critical review of the literature relevant to a general theme or topic. It is expected that the student will offer a novel and forward-thinking perspective on the topic area. The MAP does not directly propose research hypotheses and designs, nor does it involve the collection of primary-level data. It may be either a quantitative review (i.e., a meta-analysis) or a more qualitative review. It should contain a concluding section in which novel ideas are proposed and elaborated upon, and which will form a basis for the MAP Oral Defense. The topic area and scope of the MAP will be developed with the student's primary faculty mentor and one or two other Department of Psychology Faculty members. The preferred size of the Qualifying Examination Reading Committee is three members, but a two-member Committee is acceptable if an appropriate third member is not available. Students may consult their Committee members for general comments and direction concerning the MAP, but Committee member involvement in the writing of the MAP (including that of the student's Faculty mentor) is expected to be minimal.

Upon submission of the MAP document to the Qualifying Examination Reading Committee, the Committee will evaluate the MAP in terms of its potential contribution to the student's chosen field, and in terms of the degree to which it represents Ph.D.-level thinking, communication, independence, and scholarship. Ordinarily, the Qualifying Examination Reading Committee will take no longer than two weeks to evaluate the MAP and communicate their decision to the student. If the Committee determines that the MAP is unacceptable, the student will be given three months to revise it for a second evaluation by the Committee. If the revised version of the MAP is also judged to be unacceptable, the student will not be invited to pursue the Ph.D. degree in the UT Arlington Graduate Program in Psychology. Such a student's Master's degree will thus be his/her terminal degree.

If and when the MAP is deemed acceptable by the Committee, the Committee will invite the student to a MAP Oral Defense, which will take place no sooner than two weeks following communication from the Committee to the student that the student's MAP is acceptable. The MAP Oral Defense consists only of the student and Committee members, and is not open to other students, faculty, staff, or the general public. In this meeting, which will normally last between 90 and 120 minutes, Committee members will assess the student's knowledge of the topic area, the theoretical background, the methodologies likely to be employed in related research, limitations to the ideas, and conceptual and practical connections to related issues. The Committee will determine whether or not the student has clearly passed the examination, clearly failed, or passed with conditions which must be met before Ph.D. Candidacy is recommended. Upon passing both the MAP and the MAP Oral Defense, a Diagnostic Evaluation Report form must be completed, signed, and filed.

#### General Expectations and Stipulations

Upon satisfactory completion of both the MAP and the MAP Oral Defense, students should assemble a Dissertation Committee, which consists of their Faculty mentor and four other faculty members, for a total of five committee members. Students will meet with this Committee to present the proposed research and to solicit input concerning the best ways to accomplish the goals of the Dissertation Proposal. The Dissertation research may be related to, or based upon, the MAP, but this is not required. Upon approval of the Dissertation conceptualization, design, and methods, students will proceed in carrying out the approved plan of research. Please consult the Graduate Catalog and Department Handbook for general expectations regarding the Dissertation.

In addition, consult the Graduate Catalog and Department Handbook for general expectations regarding timelines. Typically, students will complete their Master's Thesis (or equivalent) in the 2nd or 3rd year of graduate studies. Ordinarily, the Qualifying Examination will be completed within one year of successfully completing the prerequisite conditions as outlined above. Because both



the MAP and the MAP Oral Defense have a two-week review and planning period, respectively, students must take these weeks into account when planning completion of the Qualifying Examination within one year. Students are also advised to be cognizant of these time frames in the event that they are required to revise their MAP. If the MAP and MAP Oral Defense have not been completed within one year of completion of all prerequisite conditions, students must submit a written explanation to their Qualifying Examination Reading Committee, detailing their progress and their anticipated completion date. Failure to complete the MAP and MAP Oral Defense within one year will also be a consideration in GTA funding decisions."

Comprehensive Examination: Presentation of a dissertation proposal to the student's dissertation supervisory committee constitutes the doctoral "comprehensive examination" for the Department of Psychology. A Request for Comprehensive Examination (PhD) form must be submitted prior to the presentation. A Results of Comprehensive Examination (PhD) form must be submitted after the presentation. These forms are available on-line. Approval of the dissertation proposal by the dissertation supervisory committee is needed before the student is considered to have passed the comprehensive examination.

### Specialization in Health Psychology and Neuroscience

The concentration in Health Psychology and Neuroscience is designed to train researchers in health and behavior, working at the cutting-edge or interdisciplinary, biomedical and biobehavioral investigation in areas such as pain, stress, psychoimmunology, cancer and aging.

#### Course Requirements:

Students seeking to specialize in Health Psychology and Neuroscience will be required to complete the two-course department statistics sequence (PSYC 5405 and PSYC 5407) and Research Methods (PSYC 5307) as well as core courses in Psychological Foundations, including Health Psychology (PSYC 5309), and Learning (Higher Mental Processes--PSYC 5313, Cognitive Development--PSYC 5314, Human Learning and Memory--PSYC 5345, or Animal Learning--PSYC 6312. Students are strongly advised to take History and Systems (PSYC 6316).

In addition, students are required to complete coursework in biological foundations, including systems physiology, neuroscience, and at least one relevant biological or biomedical specialty. A minimum of three foundations courses must be completed and these must include physiology (one of several approved courses offered in other UT departments), and behavioral neuroscience (PSYC 5333). The third required foundations course must be an approved graduate level course in genetics, immunology, endocrinology, or other specialized biomedical topic available at UT Southwestern or another UT Arlington department.

Students must complete seven electives in psychology or in other UT departments that have been approved by the program over the entire course of study. At least 5 must be courses offered by the Department of Psychology. Most department offerings will satisfy this requirement. It is expected that these electives will be advanced seminars and research courses. Students will also be required to enroll and participate in the Health Psychology Proseminar, which will meet weekly for 1 hour as a forum for a variety of seminar activities, presentations, and so on. Students will enroll in this seminar every long semester for the first four years of graduate study.

- 8 hours of Proseminar
- 8 hours of Statistics (2 courses)
- 9 hours of psychological foundations courses (methods, learning, health psychology)
- 9-12 hours biological foundations (3 courses, 3-4 credits each)
- 21 hours electives
- Thesis and dissertation as required

A typical program of study might look like this:

Year	Fall	Spring
01	Statistics, Research Methods, Proseminar	Statistics, Health Psychology, Proseminar
02	Physiology, Elective, Proseminar	Neuroscience, Learning, Proseminar

03	Biological Elective, Elective, Proseminar	Elective, Elective, Proseminar
04	Elective, Elective, Research Proseminar	Elective, Proseminar
05	Research	Research

Note: This is based on a 5-year program of study. Students may adjust the speed at which milestones are achieved by adding 4th year courses earlier.

#### Research requirements:

Research requirements include general expectations of student involvement in research throughout their graduate career and specific milestones that must be accomplished in order, including the masters' research preliminary examination, diagnostic/qualifying examinations, and the dissertation.

Masters' research: Students must complete a significant research project with primary responsibility for its derivation, conduct, and/or analysis. Ordinarily this is done during the first two years of graduate study. This must be completed before students can seek candidacy for the PhD. Students must complete, analyze, and report on a major research project, part or all of which is primarily the student's responsibility. Typically this is an experiment or study. For formal acceptance of an approved thesis so that the student can obtain a MS, university guidelines apply. The thesis committee should consist of 3 program faculty. Alternatively, the committee shall determine accepted format if a MS is not sought.

#### Preliminary Examination

Students must pass a preliminary exam, typically given at the start of the second year of graduate study. Students write answers to five questions derived from a pre-supplied readings list that test general ability to organize and integrate information and defend positions in areas of psychology. Students will be asked to re-cast, reformulate, challenge, defend, or derive established or novel concepts in psychology. Students who do not pass the exam are usually given the opportunity to retake it. Students may not seek candidacy for the PhD until this requirement has been satisfied. Reading lists are available at least four months before the examination.

#### Advancement to Candidacy

Once students have passed the Preliminary Exam and have completed the master's thesis or equivalent, they are eligible to undertake the diagnostic/qualifying examination. Successful completion of this exam process produces a recommendation for advancement to candidacy for the PhD. This process consists of two exams. The first is a comprehensive review paper that requires the student to take a novel or speculative perspective and provide an integrative and critical review of relevant literatures. Ordinarily this is completed in the third, or early in the fourth year, and may be incorporated into the introduction for the dissertation. The completed paper should be of a "publishable quality" in the style required for publication in the Psychological Bulletin. The student must assemble a two-person faculty committee (both should be program faculty) for this requirement and should meet with them at least twice, to get the topic and scope of the paper approved, and for final approval of the paper. Meetings may also be scheduled at variable intervals depending on the committee and student.

The second part of the diagnostic/qualifying examination is an oral examination, typically 90-120 minutes long, on the student's area of specialization. This will be completed after the third-year paper above has been formally accepted and will involve a student and a committee of three program faculty. In this examination, the student will present a proposition or series of propositions and a proposal to study them, and the committee will examine the student's knowledge of the area, of its methods and limitations, and of how these propositions fit into larger frameworks. The committee will determine whether the student has passed the specialty examination. An initial failure to pass can result in a retake, but continued failure will lead to a recommendation not to advance to candidacy. Passing the specialty and third-year paper requirements will lead to a recommendation for advancement to candidacy to the members of the Committee on Graduate Studies.

#### Dissertation

Upon advancement to candidacy, each student will assemble a dissertation committee. This committee is formed by the student in consultation with his or her mentor, and will consist of at least five faculty members. At least three of the faculty must be drawn from among Program faculty. The student will initially meet with this committee to present the proposed research, deliberate about the best ways to accomplish particular goals, and so on. Approval of the proposal implies that the project's conceptualization, design, and proposal methods are acceptable and that particular results are not required. Once the committee has approved the proposal (this may occur at the end of the first, or after two or more meetings), the student enrolls in dissertation research (6X99) and conducts his/her dissertation research. During this period, meetings with the committee are on an "as needed" basis. During the data analysis phase, the student may wish to schedule an informal meeting. Similarly, during writing of the dissertation, the committee may or may not meet. When a student has completed a draft of the dissertation that the primary mentor deems appropriate for his or her committee, a date for the oral defense is scheduled, and written drafts must be provided to committee members at least two weeks before this date. The PhD oral examination is conducted by the dissertation committee. The first part of the examination is an oral presentation of the research and its findings. This portion of the meeting is open to any member of the university community and guests. The second part is closed and consists of specific detailed questions about the dissertation. Both oral defense and the written dissertation must be passed.

### **Specialization in Industrial/Organizational Psychology**

Students interested in pursuing a doctoral degree with an emphasis in I/O psychology may apply for admission to either the Experimental specialization or Health Psychology and Neuroscience specialization in the doctoral program. The requirements for admission will be the same as for other master's level students, which includes completing the core curriculum requirements and an empirical thesis or thesis equivalent. Students intending to pursue their doctoral work at another university should be aware that a non-thesis master's may oblige them to meet many additional requirements at their future university, a burden that may be reduced by pursuing a doctoral degree in psychology at UT-Arlington.

## **PSYC Courses**

### **PSYC5110 – PROFESSIONAL DEVELOPMENT I**

1 Lecture Hour · 0 Lab Hours

The philosophy and methods of conducting a university class for undergraduates are examined. Specific tips and suggestions for managing course materials, lectures, audiovisual aids, grading, etc. will be presented. The role of the university instructor as a researcher as well as a teacher will be elaborated. Specific topics will include the ethics and regulation of research, service as a journal referee, corresponding with peers, participating in a research team, manuscript preparation, presentation at professional conferences, and submitting material for publication. Prerequisite: admission to the graduate program in psychology or permission of the instructor. Graded F, P. Prerequisite: Admission to the graduate program in psychology or permission of the instructor.

### **PSYC5112 – PROFESSIONAL DEVELOPMENT II**

1 Lecture Hour · 0 Lab Hours

An introduction to the skills associated with the conduct of psychology as a science and as a profession. Individual faculty will be invited to present techniques and approaches that they see as useful and necessary to the application of the specialty in psychological research and problem-solving. Graded F, P. Prerequisite: Admission to the graduate program in psychology or permission of the instructor.

### **PSYC5151 – READINGS IN PSYCHOLOGY**

1 Lecture Hour · 0 Lab Hours

Independent readings under the supervision of an individual faculty member. Students wishing to conduct research should sign up for PSYC 5191, 5291, or 5391. May be repeated for credit with consent of the Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5191 – RESEARCH IN PSYCHOLOGY**

**1** Lecture Hour · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5251 – READINGS IN PSYCHOLOGY**

**2** Lecture Hours · **0** Lab Hours

Independent readings under the supervision of an individual faculty member. Students wishing to conduct research should sign up for PSYC 5191, 5291, or 5391. May be repeated for credit with consent of the Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5291 – RESEARCH IN PSYCHOLOGY**

**2** Lecture Hours · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

## **PSYC5301 – BRAIN & BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

A comprehensive survey of physiological processes and structures underlying human and animal behavior.

## **PSYC5307 – RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

This course considers basic and advanced aspects of methodology used in psychological research, including experimental design, methodologies that combine disciplinary approaches (e.g., biomedical, behavioral, and field and laboratory approaches).

## **PSYC5309 – HEALTH PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

A survey of current theory and research in health psychology, including basic research in health and behavior, biobehavioral contributions to illness and disability, and fundamental relationships among the brain, bodily function, and behavior that may affect health and well-being. It will also include clinical and translational topics including patient interventions in medically-ill populations, pain management, and disease prevention.

## **PSYC5310 – MATHEMATICAL MODELS IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Elementary probability theory, matrix algebra, and theory of linear difference equations applied to theoretical problems in learning, signal detection, decision processes, and social interactions.

## **PSYC5313 – HIGHER MENTAL PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Includes topics such as concept identification, problem solving, reasoning, and knowledge representation.

## **PSYC5314 – COGNITIVE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

A survey of current theories of cognitive development. Recent research within topic areas, such as physical reasoning, spatial cognition, memory, and symbol use, will be used to evaluate the theories presented.

## **PSYC5315 – BEHAVIOR ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Overview of operant theory with an emphasis upon contemporary problems. Basic concepts that are covered include: reinforcement and stimulus control, punishment, compound schedules, response topography, and chaining. Other topics include complex human operants, verbal behavior, behavior modification, and contingency management.

### **PSYC5321 – PERSONALITY PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

A survey of contemporary topics in personality psychology, including personality assessment, strategies for studying personality, temporal stability and cross-situational consistency in behavior, and personality influence on social behavior.

### **PSYC5322 – SOCIAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

A survey of contemporary topics in social psychology, including interpersonal attraction, altruism and aggression, attribution and social cognition, social influence, group dynamics, and social motivation.

### **PSYC5323 – GROUP PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Survey of the major topics in group dynamics. Among the issues covered will be performance, motivation, goal setting, decision-making, creativity, social influence, memory, leadership, teamwork, and collective behavior.

### **PSYC5324 – APPLIED RESEARCH DESIGN**

**3** Lecture Hours · **0** Lab Hours

Basic aspects of organizational research methods will be covered including: research ethics, the scientific method, inductive and deductive reasoning, research questions, hypotheses, study designs, manipulation of variables, and various measures and methods used in organizational research. The history of Industrial and Organizational research will also be covered.

### **PSYC5325 – ORGANIZATIONAL BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

Theory and research concerning organizational development will be examined. This course is designed to provide an intensive survey of topics relating to organizational socialization, communication, change strategies, climate and culture, and team dynamics. Leadership theories, models, and practices will be evaluated.

### **PSYC5326 – EMPLOYEE SELECTION**

**3** Lecture Hours · **0** Lab Hours

Principles and techniques of employee selection, placement, and classification will be examined. Job analysis and competency modeling will be covered with a focus on the legal aspects of selection and promotion. The use of various methods and measures of job relevant individual differences will be examined within the context of predicting performance criteria.

### **PSYC5327 – INDUSTRIAL AND ORGANIZATIONAL INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

This course is preparation for and supervision of internship activities in an organization or organizations in an area related to area of interest or training. No credit will be given for previous experience or activities. Course may be repeated for credit. Prerequisite: consent of instructor.

### **PSYC5328 – EMPLOYEE ATTITUDES AND BEHAVIORS**

**3** Lecture Hours · **0** Lab Hours

Theory and research concerning the determinants, consequences, and measurement of job satisfaction and related constructs such as involvement, commitment and work motivation will be covered. Attitudes,

opinions, and beliefs will be examined in relation to the behavioral intentions of individuals at work. Organizational interventions designed to improve and enhance employee motivation, attitudes and behaviors will be evaluated.

### **PSYC5329 – PERFORMANCE MANAGEMENT SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Principles and techniques of the performance appraisal and feedback process will be covered. Different sources of performance information will be evaluated. Mentoring and procedures for communicating performance evaluation information and improving job performance via development and training will be examined. Theories and techniques used to design, conduct, and evaluate training programs will be evaluated.

### **PSYC5331 – PERCEPTION AND ATTENTION**

**3** Lecture Hours · **0** Lab Hours

Survey of methods and findings dealing with perception; emphasis will be upon behavioral rather than physiological considerations; particular topics include signal detection theory, form and pattern recognition, and attentional mechanisms.

### **PSYC5333 – BEHAVIORAL NEUROSCIENCE**

**3** Lecture Hours · **0** Lab Hours

A survey of biological and physical processes underlying behavior. Emphasis on neural, hormonal, and genetic determinants of behavior. Topics include regulatory behaviors, reward and nociceptive systems, differentiation and sociosexual behaviors, limbic and cortical functions.

### **PSYC5334 – HUMAN PHYSIOLOGY**

**3** Lecture Hours · **0** Lab Hours

This course will provide a comprehensive review of the human physiology that is categorized in 15 sections and 84 chapters. Some of them will be covered by different courses, such as Neuroscience, Immunology, and Endocrinology. Students are expected to learn how the human body works and what the underlying mechanisms that control the physiological responses are. In case of damage to these systems, what will happen to the body as a whole and what will be the impact on behaviors?

### **PSYC5337 – ANIMAL COGNITION AND BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

A survey of theory and data on how animals learn and represent the world and the evolutionary processes that influence their individual and social behavior.

### **PSYC5341 – DECISION MAKING**

**3** Lecture Hours · **0** Lab Hours

Factors that influence categorical and numerical judgments, choices, and preference decisions. Comparison of human decision behavior with various quantitative theories.

### **PSYC5345 – HUMAN LEARNING AND MEMORY**

**3** Lecture Hours · **0** Lab Hours

Survey of current approaches to the study of human learning and memory.

### **PSYC5348 – EXPOSURE TO CONTEMPORARY PC MICROCOMPUTERS**

**3** Lecture Hours · **0** Lab Hours

Operating systems, ASCII editors, word processors, spreadsheets, graphics, data bases, programming languages, programming psychological experiments, statistical programming, using networks, the Internet, e-mail, Gopher, FTP, and Telnet.



### **PSYC5351 – READINGS IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Independent readings under the supervision of an individual faculty member. Students wishing to conduct research should sign up for PSYC 5191, 5291, or 5391. May be repeated for credit with consent of the Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

### **PSYC5389 – CONTEMPORARY PROBLEMS IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Topics vary. May be repeated for credit with consent of Graduate Advisor.

### **PSYC5390 – CAPSTONE COURSE IN INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Designed for students near or at the end of their I-O curriculum to demonstrate the ability to apply knowledge of industrial-organizational psychology.

### **PSYC5391 – RESEARCH IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Independent research under the supervision of an individual faculty member; may be repeated for credit with consent of Graduate Advisor. Graded P/F/R. Prerequisite: consent of the instructor.

### **PSYC5405 – ADVANCED STATISTICS I**

**3** Lecture Hours · **1** Lab Hour

Basic descriptive and inferential statistics used in psychological research.

### **PSYC5407 – EXPERIMENTAL DESIGN**

**3** Lecture Hours · **2** Lab Hours

Statistical aspects of complex experimental designs used in psychological research. Prerequisite: PSYC 5406.

### **PSYC5600 – ADVANCED RESEARCH**

**6** Lecture Hours · **0** Lab Hours

Supervised research. May be repeated for credit. Graded P/F/R. Prerequisite: permission of instructor

### **PSYC5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: 12 hours of advanced psychology and an approved thesis proposal.

### **PSYC6101 – PROSEMINAR IN HEALTH PSYCHOLOGY**

**1** Lecture Hour · **0** Lab Hours

Professional development seminar will include presentations of ongoing and recently completed research, discussion of best approaches to writing reports and giving research presentations, grant writing skills, and other scientific, professional issues.

### **PSYC6110 – PROSEMINAR IN INDUSTRIAL & ORGANIZATIONAL PSYCHOLOGY**

**1** Lecture Hour · **0** Lab Hours

Professional development seminar will include presentations of ongoing and recently completed research, discussion of best approaches to writing reports and giving research presentations, grant and contract

writing skills, and other scientific, professional issues. Course may be repeated for credit. Prerequisite: consent of instructor.

### **PSYC6191 – RESEARCH IN PSYCHOLOGY**

1 Lecture Hour · 0 Lab Hours

### **PSYC6291 – RESEARCH IN PSYCHOLOGY**

2 Lecture Hours · 0 Lab Hours

### **PSYC6300 – SEMINAR IN PSYCHOLOGY**

3 Lecture Hours · 0 Lab Hours

Offered each semester. Topics vary. May be repeated for credit. Prerequisite: consent of instructor.

### **PSYC6312 – ANIMAL LEARNING**

3 Lecture Hours · 0 Lab Hours

Survey of contemporary topics in animal learning.

### **PSYC6316 – HISTORY AND SYSTEMS**

3 Lecture Hours · 0 Lab Hours

Consideration of the origins of psychology in the development of Western thought. Early conceptualization of problems and their modification with changes in evidence is emphasized.

### **PSYC6318 – SOCIAL AND PERSONALITY DEVELOPMENT**

3 Lecture Hours · 0 Lab Hours

Theory and research on social and emotional development with an emphasis on the interaction between individual needs and abilities and societal expectations and demands.

### **PSYC6320 – NEUROPHARMACOLOGY**

3 Lecture Hours · 0 Lab Hours

Survey of the basis of behavioral pharmacology including mechanisms and theories of drug actions, techniques and strategies of research, common psychoactive drugs, and the uses of drugs in clinical practice.

### **PSYC6335 – ANIMAL BEHAVIOR**

3 Lecture Hours · 0 Lab Hours

Phylogenetic approach to some basic problems in behavior, with special emphasis on unlearned behavior.

### **PSYC6336 – COMPARATIVE PSYCHOLOGY**

3 Lecture Hours · 0 Lab Hours

Theory and data about all aspects of behavior stressing similarities and differences across species.

### **PSYC6338 – NEURAL AND COGNITIVE MODELING**

3 Lecture Hours · 0 Lab Hours

Principles of neural network and dynamical systems modeling; application of these principles to the simulation of cognitive processes in both brains and machines; models of associative learning, pattern recognition and classification, and individual and group behavior. Prerequisite: consent of instructor.



### **PSYC6343 – COGNITIVE NEUROPSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Surveys current experimental and clinical research and theory relating the brain and cognition. Emphasizes selected areas i.e., perception, attention, memory, language, and thinking.

### **PSYC6346 – EVOLUTIONARY PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Evolutionary processes influence behavior and thinking of humans and nonhuman species. Sociosexual behavior, aggression, cognition, and information processing from an evolutionary perspective will be among the topics covered.

### **PSYC6347 – ENVIRONMENTAL PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

Survey of the current literature on the impact of various features of the physical environment on human behavior. Topics covered include crowding, privacy, territoriality, personal space, noise, the natural environment, residential, educational and work environments, urban and community design, and pollution and resource management. Designed to be of interest to graduate students in architecture, urban affairs, environmental science and engineering, geology, sociology, as well as those in psychology.

### **PSYC6349 – PSYCHOMETRIC THEORY**

**3** Lecture Hours · **0** Lab Hours

Introduction to test construction. Topics include reliability theory, test validation, and item analysis.

### **PSYC6355 – MULTIVARIATE ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Application of general linear model to special cases such as factor analysis, multiple regression, and discriminant analysis. PSYC 5344 recommended.

### **PSYC6391 – RESEARCH IN PSYCHOLOGY**

**3** Lecture Hours · **0** Lab Hours

### **PSYC6399 – DISSERTATION**

**3** Lecture Hours · **0** Lab Hours

Graded R/F. Prerequisite: approved dissertation proposal.

### **PSYC6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded R/F/P/W. Prerequisite: approved dissertation proposal.

### **PSYC6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded P/F/R. Prerequisite: approved dissertation proposal.

### **PSYC7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial

aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
    - Social Work - MSSW & PhD
  - School of Urban and Public Affairs
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Social Work

School of Social Work

Web [www.uta.edu/ssw/](http://www.uta.edu/ssw/)

---

### Degrees / Certificates

#### Master's Degrees

- Social Work, M.S.S.W.
- Social Work, M.S.S.W. Advanced Studies
- Social Work, M.S.S.W. Non Thesis Advanced Specialty

#### Doctoral Degrees

- Social Work, Ph.D.

---

### Graduate Faculty

- [Yvonne Butler](#)
- [Noelle Fields](#)
- [Janet Finch](#)
- [Schnavia Hatcher](#)
- [Michael Killian](#)
- [Anne Nordberg](#)

#### Assistant Professor in Practice

- [Jane Hickerson](#)

#### Associate Dean for Research & Community Outreach

- [John Bricout](#)

#### Associate Dean of Academic Affairs

- [Debra Woody](#)

#### Professor

- [Beverly Black](#)
- [Doreen Elliott](#)
- [Rebecca Hegar](#)
- [Richard Hoefler](#)
- [Ski Hunter](#)
- [Catheleen Jordan](#)
- [Vijayan Pillai](#)
- [Phillip Popple](#)
- [Maria Scannapieco](#)

#### Associate Professor

- [Randall Basham](#)
- [Norman Cobb](#)
- [Peter Lehmann](#)
- [Diane Mitschke](#)
- [Sung Moon](#)
- [Alexa Smith-Osborne](#)

#### Assistant Professor

[Gail Adorno](#)  
[Joan Blakey](#)  
[Courtney Cronley](#)  
[Elissa Madden](#)  
[Regina Praetorius](#)  
[Katherine Sanchez](#)  
[Eusebius Small](#)  
[Larry Watson](#)

#### Professor Emeritus

[James W Callicutt](#)  
[Wayne Duehn](#)  
[Peter G Gaupp](#)  
[Santos Hernandez](#)  
[Pedro J Lecca](#)  
[John J Litrio](#)  
[Nazneen Mayadas](#)  
[Charles Mindel](#)  
[Richard Schoech](#)  
[M Coleen Shannon](#)  
[Fernando G Torgerson](#)  
[Thomas Watts](#)

---

### Graduate Advisors

[Nancy Ashenhart](#)  
*Social Work, Ph.D.*

[Randall Basham](#)  
*Social Work, M.S.S.W.*

[Beverly Black](#)  
*Social Work, Ph.D.*

---

### Department Information

#### Courses

## Department Information

#### Master of Science in Social Work (MSSW)

- [MSSW Program Goals](#)
- [MSSW FOUNDATION OBJECTIVES](#)
- [MSSW ADVANCED YEAR OBJECTIVES](#)
- [Admission Criteria for the Master's Program](#)
- [Dual Degree Programs - On Campus](#)
- [MSSW Programs - Distance Education Programs](#)
- [Joint Master's in Social Work and Masters in Public Health \(MSSW/MPH\)](#)
- [Part-Time Students](#)

#### Doctor of Philosophy in Social Work

- [Ph.D. Program Goals](#)
- [Ph.D. Program Objectives](#)
- [Admission Criteria for the Ph.D. Program](#)

- **Degree Requirements**

## **Master of Science in Social Work (MSSW)**

### **MSSW Program Goals**

Goal 1: The MSSW Program prepares students to practice effectively and ethically with the full range of social systems, emphasizing evidence-informed practice, a strengths approach, diversity, social justice, empowerment, and a critical thinking perspective.

Goal 2: The MSSW program prepares students who understand the global and organizational contexts of social work practice and who are prepared to assume the responsibility for leadership positions, as well as engaging in life long-learning.

Goal 3: The MSSW Program prepares students, by valuing social work history and the integration of social work knowledge, to understand professional social work and to be prepared for advanced level concentration in either:

Concentration 1: Direct Practice with a specialization in (1) Child and Family Services; and, (2) Mental Health Services, or

Concentration 2: Community and Administrative Practice.

### **MSSW FOUNDATION OBJECTIVES**

1. Apply critical thinking skills within the context of professional social work practice.
2. Understand the value base of the profession and its ethical standards and principles, and practice accordingly.
3. Practice without discrimination and with respect, knowledge, and skills related to clients' age, class, color, culture, disability, ethnicity, family structure, gender, marital status, national origin, race, religion, sex, and sexual orientation.
4. Understand the forms and mechanisms of oppression and discrimination and apply strategies of advocacy and social change that advance social and economic justice.
5. Understand and interpret the history of the social work profession and its contemporary structures and issues.
6. Apply the knowledge and skills of generalist social work practice with systems of all sizes.
7. Use theoretical frameworks supported by empirical evidence to understand individual development and behavior across the life span and the interactions among individuals and between individuals and families, groups, organizations, and communities.
8. Analyze, formulate, and influence social policies.
9. Evaluate research studies, apply research findings to practice, and evaluate their own practice interventions.
10. Use communication skills differentially across client populations, colleagues, and communities.
11. Use supervision and consultation appropriate to social work practice.
12. Function within the structure of organizations and service delivery systems and seek necessary organizational change.

### **MSSW ADVANCED YEAR OBJECTIVES**

#### **Direct Practice Concentration Educational Objectives**

By graduation, students specializing in Direct Practice will achieve the foundation objectives and the following advanced concentration objectives:

1. Demonstrate knowledge and skills in direct practice with an area of specialization: child and family services or mental health services.

2. Complete multidimensional, bio-psycho-social assessments with client systems and groups in their area of specialization, taking into account client strengths, diversity and social justice.
3. Develop and apply appropriate, evidence-informed, empowerment-based intervention plans within their area of specialization.
4. Critically analyze theoretical models of micro practice to challenge societal oppression and discrimination, as well as for decision-making in practice.
5. Demonstrate an understanding of race, gender, sexual orientation, ability, culture, and other client characteristics, in conducting culturally sensitive, competent, and ethical social work practice.
6. Demonstrate the ability to evaluate practice activities by use of outcome and process techniques, using the results to modify practice.
7. Demonstrate ability to integrate micro and macro practice, policy and research into their area of service delivery in order to enhance client well-being.
8. Engage in life-long learning and activities to update and improve professional knowledge and skills.

### **Community and Administrative Practice Concentration Educational Objectives**

By graduation, students specializing in Community and Administrative Practice will achieve the foundation objectives and the following advance concentration objectives:

1. Build on generalist skills in community assessment to design an intervention strategy including mission, goals, objective, budget, logic model, and evaluation.
2. Identify, critically evaluate, and apply appropriate, evidence-informed interventions at the agency or community level.
3. Critically analyze and apply a variety of community and administrative theories to practice.
4. Demonstrate skills in ethically and empowerment-based social work practice, taking into account the impact of race, gender, sexual orientation, ability, culture, religion, national origin and other client characteristics in organizations, and communities.
5. Design practice evaluation activities to improve human service interventions in organizations and communities.
6. Demonstrate ability to integrate micro and macro practice, policy, and research into their area of service delivery in order to enhance client well-being.
7. Prepare to engage in life-long learning and activities to update and improve professional knowledge and skills.

### **Admission Criteria for the Master's Program**

#### **Admission Procedures**

Students are admitted to the MSSW program for Fall or Spring semester with the exception of students that qualify for advanced standing with their undergraduate social work degree. Advanced Standing students can be admitted for a fall, spring or summer semester. Please contact the MSSW Admissions Office ([sswadmissions@uta.edu](mailto:sswadmissions@uta.edu)) to obtain the complete application checklist and information concerning specific application deadlines. Applicants may also visit the MSSW Admissions webpage for more information (<http://www.uta.edu/ssw/academics/mssw/mssw-admissions.php>).

The admissions process is the same for all MSSW programs, including the Distance Education Cohorts.

\*Please note that the School of Social Work's deadline for application is different from the published deadlines of the Graduate School.

#### **General Admission Criteria**

1. A bachelor's degree with a liberal arts perspective from an accredited college or university.

2. Undergraduate GPA must be equal to or greater than 3.0 in the last 60 hours as calculated by the Graduate School or GRE score that evidences an ability to do satisfactory graduate work.
3. Three letters of reference indicating professional or academic promise.
4. Personal statement providing evidence of professional or academic goals consistent with the Social Work Program.
5. Personal qualifications considered essential to the successful practice of social work including leadership ability, personal maturity, motivation for a human service profession and experience in social work. A personal interview may be required.
6. Applicants to the school whose native language is not English must take, in addition to the Test of English as a Foreign Language, the Test of Spoken English.

**Unconditional MSSW Admission:** An applicant is admitted unconditionally when all documentation relating to admissions criteria is received and performance on a majority of the criteria is acceptable.

**Probationary Admission:** Candidates with less than a 3.0 GPA in the last 60 hours of undergraduate program as calculated by the Graduate School and GRE scores do not indicate ability to do satisfactory graduate work may be admitted on probation if other admission criteria are satisfactory and indicate academic potential.

**Provisional Admission:** An applicant unable to supply all required documentation prior to the admission decision deadline but whom otherwise appears to meet admission requirements may be granted provisional admission.

**Denial of Admission:** Candidates may be denied admission if they have less than satisfactory performance on a majority of the admissions criteria.

**Deferred Admission:** A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

Neither probationary nor provisional admission will be granted to an applicant with less than a 3.0 GPA on the last two years of a bachelor's degree (approximately 60 hours) when the required GRE score is lacking.

### **Financial Aid**

Scholarships are awarded annually and administered by the School of Social Work. Link to scholarship info: [www.uta.edu/ssw/student-resources/scholarships.php](http://www.uta.edu/ssw/student-resources/scholarships.php)

A limited number of traineeships are available through Child Protective Services.

### **Graduate Fellowships**

Candidates for fellowship awards must have a GPA of 3.0 in their last 60 undergraduate credit hours and in any graduate credit hours, and must be enrolled in a minimum of 6 hours in both long semesters to retain their fellowships.

### **Curriculum: Master of Science in Social Work**

The curriculum is organized around five curriculum areas: Direct Practice, Community and Administration Practice, Research, Policy, and Human Behavior and the Social Environment. Required and elective courses are offered in each curriculum area. Students must complete foundation (first year) required courses before taking advanced (second year) courses. In the advanced year, a specialty is selected in child/family, mental health, and a combination of administration and community practice. First year courses have 5000 numbers; second year courses have 6000 numbers. Master's level students are also allowed to take doctoral level courses with permission of the instructor and MSSW Program Director.

### **Degree Requirements**



The program leading to the degree of Master of Science in Social Work covers a minimum of four semesters for full-time students and requires the completion of 61 semester hours of graduate work including class and field instruction, as well as thesis or integrative seminar (non-thesis option).

In addition to the requirements of the Graduate School, each graduate student in the social work program must (1) maintain at least a B (3.0) overall GPA in all coursework; (2) demonstrate suitability for professional social work practice; and, (3) demonstrate knowledge of and adherence to the Code of Ethics of the National Association of Social Workers and if licensed in Texas the Code of Ethics as currently published by the Texas Council for Social Work Examiners.

At such time as questions are raised by Social Work faculty or field instructors regarding a student's violation of #2 or #3 of the above requirements, the student will be notified and will be provided the opportunity to respond to the Academic and Professional Standards Committee. The committee will review the student's performance and make a recommendation concerning the student's eligibility to continue in the program. Appeal of a recommendation may be made to the Dean of the School of Social Work.

Special Note: No credit is given for life and/or work experience.

### **Advanced Standing**

An applicant meeting all regular admissions requirements who have graduated from an accredited undergraduate program in social work will automatically be considered for advanced standing status in the graduate program. Advanced standing is not granted to students admitted on probation.

Advanced standing students may receive credit hour waivers for some undergraduate social work courses which are considered equivalent to the first and second semester courses, provided the student's grades in those courses are B or better. Students may receive course waivers for more than 23 hours, but only 23 hours may be applied to the 61-hour MSSW degree.

Students requesting advanced standing status who completed their BSW degrees more than six years prior to the semester in which they propose to begin their graduate studies must provide a documented summary of their work as a social worker. Students who have completed their BSW degrees within six years of their planned start of studies are not required to submit these materials. Advanced standing will be granted on a case-by-case basis contingent upon evaluation of transcripts and any other required supporting information.

### **Advanced Specialty Program**

An applicant meeting all regular admissions requirements who has completed the foundation year at an accredited master's program in social work may request admission into the Advanced Specialty MSSW program.

Students in the Advanced Specialty MSSW Program may receive credit hour waivers for some graduate level social work courses which are considered equivalent to the foundation year courses taken at an accredited social work program, provided that the grades in those courses are B or better. Students applying to the Advanced Specialty MSSW Program may be required to provide course syllabi for each course taken in the foundation year at their MSSW program prior to entering UT Arlington's program. Students may receive course waivers for more than 23 credit hours, but only 23 hours may be applied to the 61-hour MSSW degree. Additionally, three credit hours may be transferred from foundation year courses taken at another accredited social work program.

Students requesting admission into the Advanced Specialty MSSW program must have completed the foundation year course work no more than six years prior to the semester in which they seek admissions. Admission to the Advanced Specialty MSSW program will be granted on a case-by-case basis contingent upon evaluation of transcripts and any other required supporting information.

### **Dual Degree Programs - On Campus**



Students in social work may participate in one of five dual degree programs whereby they can earn a Master of Science in Social Work and 1) a Master of City and Regional Planning, 2) a Master of Public Administration, 3) a Master of Arts in Urban Affairs, 4) a Master of Arts in Criminology and Criminal Justice, or 5) a Master of Arts in Sociology. By participating in a dual degree program, students can apply some semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from 6 to 18 hours, subject to the approval of Graduate Advisors from both programs.

To participate in the dual degree program, students must make separate application to each program and must submit a separate Program of Work for each degree. Those interested in a dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also information on Dual Degree Programs in the Advanced Degree Requirements section of this catalog.

## **MSSW Programs - Distance Education Programs**

### **UT Arlington Fort Worth Center MSSW Cohort Program**

The UT Arlington School of Social Work offers an MSSW Degree with a Concentration in Direct Practice that includes a specialization in Children and Families with a Certificate in Administration through our Fort Worth Center location. This program will prepare students to work directly with families and children while also acquiring knowledge in administration that will enhance their ability to assume leadership and administrative positions in social service agencies.

This program is designed to meet the needs of working professionals. Students will take one class at a time in 5-week blocks. Classes will be offered twice each week in the evening (scheduling may be subject to change during the summer semester as well as the intersessions). This will enable students to remain employed full time. The program of work for the degree is scheduled to be completed in 2 years. A new cohort of students will be admitted to the MSSW program at the UTA Fort Worth Center every fall.

Students applying to this program must meet all regular admissions requirements. The application process is the same as for students applying to our traditional MSSW program.

### **UT Arlington / Lubbock Christian University Cooperative MSSW Program**

The UT Arlington School of Social Work in conjunction with LCU offers an Advanced Standing MSSW Degree with a Concentration in Direct Practice that includes a specialization in Children and Families.

This program is designed the needs of students in the Lubbock area. Students applying to this program can expect to complete the required courses both on the LCU campus and online through UT Arlington.

Students applying to this program must meet all regular admissions requirements. An applicant meeting all regular admissions requirements who has graduated from an accredited undergraduate program in social work and meets the Advanced Standing criteria will be eligible for this program. Advanced Standing status is not granted to students admitted on probation.

The application process is the same as for students applying to our traditional MSSW program.

### **MSSW Online Program**

The MSSW Online Program is designed as a cohort that begins every fall and continues through a predetermined 61 hour degree plan at a part-time pace for three years. If you qualify for advanced standing then you will follow a 38-hour degree plan at a part-time pace for two years. Students in this cohort focus on Direct Practice (Children and Families) as their concentration area and are required to complete two field practicums for a total of about 900 hours. The practicum is the only face to face requirement; all of the courses are fully online. Expectations of the courses (assignment requirements, deadlines, discussions, etc...) will vary by instructor.

This program is open for anyone who qualifies for admission into the MSSW Program. **At this time you must be a Texas resident currently living in Texas to apply to the MSSW Online Program.**

### Joint Master's in Social Work and Masters in Public Health (MSSW/MPH)

The Master of Social Work/Master of Public Health (MSSW/MPH) joint degree is a collaborative program between The University of Texas at Arlington School of Social Work and The University of Texas School of Public Health (UTSPH). The MSSW/MPH joint degree program was developed to respond to the need for a greater integration of the knowledge and skills shared by social work and public health professionals. The MSSW/MPH program will prepare students to integrate social work and public health knowledge and skills in their professional lives as practitioners and researchers.

The curriculum is a general plan for the MSSW/MPH. By taking a specified number of approved courses in both programs, it is possible for students to complete both degrees in three years (two years for Advanced Standing students), while customizing the program to meet their interests and educational goals. Flexibility in the program allows most students to combine the MPH and MSSW requirements of a practicum with other learning experiences from the MSSW program. Students are guided by a Student Advisory Committee comprised of faculty from both participating school programs.

Students seeking admission to the MSSW/MPH program must meet the application requirements of each University, apply and be admitted to both degree programs before being considered for acceptance into the dual degree program by the MSSW/MPH Coordinating Committee. Please note: admission to one program does not ensure admission to the other.

Students are responsible for tuition and fee payments for courses taken in both schools, and upon successful completion of the degree requirements will receive a diploma from each university. Current MSSW or MPH students may decide to add the joint degree option to their educational plan and receive credit for courses. MPH students must declare their intent to enter the program by the completion of their second semester. MSSW students must declare their intent to enter the program by the completion of the foundation year (2 year students) or completion of 9 credit hours (advanced standing students)

### Part-Time Students

Admission and degree requirements for part-time students are the same as those for full-time students. Likewise, part-time students must maintain the performance level required of full-time students.

## Doctor of Philosophy in Social Work

### Ph.D. Program Goals

The Doctor of Philosophy in Social Work is designed to prepare scholars to advance knowledge development and dissemination for the profession of social work. The program builds on the premise that social welfare and social work must be scientifically and theoretically based and continually responsive to changing local and global societal needs. Upon completion of the Ph.D. Program students will display competency in theory and theory development; knowledge and skills in research methods and data analysis; theory, research, and policy as applied to a specialty practice area; understanding and commitment to the underlying values, ethics, and social and economic justice perspectives in the scientific inquiry in social work; and theory and research as applied to social work practice, policy, and social work education. Graduates of the program are expected to make a significant contribution to the profession of social work through their own continued research, teaching, scholarship and service.

A specialty in comparative social policy is offered in conjunction with the Universidad Autonoma De Nuevo Leon (UANL) Monterrey, Mexico. Students will complete their first year of doctoral courses at their home institution. Student will complete second year courses at the alternate

institution. Classes at UANL are conducted in Spanish and taught by UANL faculty. Classes at UT Arlington are conducted in English and are taught by UT Arlington faculty.

### Ph.D. Program Objectives

Upon completion of the Ph.D. Program students will display competency in:

1. Theory and theory development.
2. Knowledge and skills in research methods and data analysis.
3. Theory, research, and policy as applied to a specialty practice area.
4. Understanding and commitment to the underlying values, ethics, and social and economic justice perspectives in the scientific inquiry in social work.
5. Theory and research as applied to social work practice, policy and social work education.

### Admission Criteria for the Ph.D. Program

To be admitted to the Doctor of Philosophy in Social Work program, an applicant must satisfy the general admission requirements of the Graduate School and his or her academic record must show preparation for advanced study in social work. The students accepted for admission are those whose academic achievements, previous experience, and aptitude for research and scholarship indicate the potential for achieving the objectives of the program. In addition, admission to the program requires:

1. Master's degree in Social Work or related field. For applicants with a master's in a related field, a background in social and behavioral science and research methods is desirable.
2. Undergraduate GPA of 3.0 minimum, in the last 60 hours as calculated by the Graduate School.
3. Master's GPA of 3.4 minimum as calculated by the Graduate School.
4. A Graduate Record Examination (GRE) or EXADEP score that evidences an ability to do satisfactory graduate work if master's GPA is less than 3.4.
5. Transcripts of all undergraduate and graduate work.
6. Curriculum vita.
7. Academic goals consistent with the Social Work Program.
8. Professional writing sample.
9. Evidence of statistics course in the last 5 years.
10. Three letters of recommendation, preferably from those holding a Ph.D., indicating professional and academic potential and addressing the areas of writing skills and analytical ability.
11. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, minimum score of 7.0 on the IELTS, or a minimum TOEFL iBT total score of 90 with additional scores that meet or exceed 23 for the written section, 23 for the speaking section, 22 for the reading section, and 22 for the listening section to meet this requirement.

**Unconditional Ph.D. Admission:** An applicant is admitted unconditionally when all documentation relating to admissions criteria is received and performance on the criteria is acceptable.

**Probationary Ph.D. Admission:** An applicant who's Master's GPA is below 3.4 or that scores GRE or the EXADEP do not indicate ability to do satisfactory graduate work may be admitted on probation when performance on the majority of the remaining criteria is acceptable.

**Provisional Admission:** An applicant unable to supply all required documentation prior to the admission decision deadline but that otherwise appears to meet admission requirements may be granted provisional admission.

**Denial of Ph.D. Admission:** Candidates may be denied admission if they have less than satisfactory performance on a majority of the admissions criteria.

**Deferred Admission:** A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

An application for admission, transcripts of previous academic work and Graduate Record Examination or EXADEP scores must be submitted to the Graduate School of the University. An additional separate application and supporting materials must be sent to the Graduate Advisor, Ph.D. in Social Work Program.

### Degree Requirements

The program leading to the degree Doctor of Philosophy in Social Work covers nine semesters (three years) of full-time study and requires the completion of 48 semester hours of graduate work including coursework, a qualifying examination, a comprehensive specialty examination and a dissertation. Students and their faculty supervisory committee together develop a plan of study geared to the students' interests. Included in this plan are a set of required and elective courses in which students pursue their specialized interests.

1. 18 hours of Core coursework.
2. The core coursework qualifying examination must be satisfactorily completed before progressing in the program.
3. Six hours of nine hours Research Practicum.
4. Six hours electives selected from relevant graduate courses offered outside the School of Social Work.
5. Upon completion of 36 hours of required or elective coursework, the specialty comprehensive examination is taken prior to application for candidacy and registration for dissertation.
6. Three hours of dissertation tutorial taken upon successful completion of comprehensive specialty examination.
7. Nine total hours of dissertation must be taken for a student to graduate.

Successful completion of both the core qualifying examination and the comprehensive specialty examination in the area of study to advance the student to candidacy at which time he or she devotes time to the completion of the dissertation. The last step before the degree is awarded is the successful final defense of the dissertation.

Doctoral students must demonstrate knowledge of and adherence to the Code of Ethics of the National Association of Social Workers and the Code of Ethics as currently published by the Texas State Board of Social Worker Examiners.

## SOCW Courses

### SOCW5301 – HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT I

3 Lecture Hours · 0 Lab Hours

Exploration of behavioral and social science knowledge of human behavior and development through the life course. Examines major systems in society: individual, group, family, and community; and the diversity of ethnicity, race, class, sexual orientation, and culture.

### SOCW5303 – FOUNDATIONS OF SOCIAL POLICY AND SERVICES

3 Lecture Hours · 0 Lab Hours

Examines how social goals are met by social welfare institutions. Conceptual schemes are developed for analyzing the structure of social welfare institutions and evaluating social welfare sub-systems. The social work profession also is examined in the context of the evolution and function of the contemporary American social welfare system. Required of all first-year students.

### **SOCW5304 – GENERALIST MICRO PRACTICE**

**3** Lecture Hours · **0** Lab Hours

This foundation level course introduces graduate students to both theory and methods for social work practice with individuals, families, and small groups. It emphasizes a generalist perspective, beginning interviewing and relationship skills, problem assessment, goal setting, and contracting. Special attention is given to the common roles assumed by social workers (e.g. facilitator, broker, advocate). Required of all except advanced standing students.

### **SOCW5306 – GENERALIST MACRO PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Examines generalist community and administrative practice roles, the perspectives of strengths, empowerment, evidence-based practice, and global practice along with the values of social justice, diversity, and participation. Specific attention is given to assessing community assets and needs. Required of all except advanced standing students.

### **SOCW5310 – MICRO AND MACRO PRACTICE FIELD SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Integration of social work knowledge, theory, and skills learned in the classroom with practical application in social work setting. Prerequisite: SOCW 5301, 5304, 5306, and concurrent enrollment in SOCW 5551.

### **SOCW5317 – HUMAN BEHAVIOR AND DIVERSE POPULATIONS**

**3** Lecture Hours · **0** Lab Hours

Introduction to theoretical, practical, and policy issues related to race, ethnicity, and women. Historical, political, and socioeconomic forces are examined that maintain racist and sexist values, attitudes, and behaviors in society and all levels of organizational behavior. The importance and contribution of globalization, social justice and diversity are explored.

### **SOCW5322 – RESEARCH AND EVALUATION METHODS IN SOCIAL WORK I**

**3** Lecture Hours · **0** Lab Hours

This course is designed to provide students with an understanding of and ability to use the evidence-informed practice process to identify, analyze and apply evidence-informed interventions. Students will be able to comprehend both quantitative and qualitative research and to synthesize strengths and weaknesses of the social work literature. Students will be able to synthesize and evaluate research in terms of its content, quality, and applicability to clients. Students will understand scientific and ethical approaches to building knowledge to apply to and evaluate the impact of interventions on clients or clientsA presenting problems.

### **SOCW5551 – APPLIED SOCIAL WORK PRACTICE I**

**5** Lecture Hours · **0** Lab Hours

Practical internship experience in the field with a social work agency. Course hours are completed by contacting the agency you are assigned to. Please contact the Field Office for more information. Prerequisites: SOCW 5301, 5304, and 5306.

### **SOCW6151 – APPLIED SOCIAL WORK PRACTICE II**

**1** Lecture Hour · **0** Lab Hours

### **SOCW6190 – TUTORIAL**

**1** Lecture Hour · **0** Lab Hours

Arrangements may be made for a directed and supervised tutorial in a select area of special interest to the student.

### **SOCW6251 – APPLIED SOCIAL WORK PRACTICE II**

**2** Lecture Hours · **0** Lab Hours

### **SOCW6301 – ADVOCACY AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Politics are key to developing social policy. Students learn theory and skills to impact social and distributive justice at local, state and national levels. Examines the role of the social work profession in politics. This course may be chosen as a Policy, Administrative Practice, or Community Practice elective. Prerequisite: SOCW 5303. Corequisite: SOCW 5310 & SOCW 5551.

### **SOCW6303 – POVERTY, INEQUALITY AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

This course examines the nature and extent of poverty and inequality in the United States, their causes and consequences, and the debate concerning the role of government in providing anti-poverty programs. Many points of view concerning social and distributive justice are presented, from the radical left to radical right. Prerequisite: SOCW 5303. Corequisites: SOCW 5310 & SOCW 5551.

### **SOCW6304 – SOCIAL POLICY AND CHILD WELFARE**

**3** Lecture Hours · **0** Lab Hours

Examination of current policies, programs, and practices. Attention given to new perspectives on the delivery system and staffing in child welfare. Through analysis and research, students are provided knowledge for more effective practice in the field of child welfare. Prerequisite: SOCW 5303.

### **SOCW6305 – INTEGRATIVE SEMINAR**

**3** Lecture Hours · **0** Lab Hours

Focuses on issues and aspects of practice of broad concern to the profession of social work. Faculty members serve as consultants and resource persons to seminar members. Required of all non-thesis students in their final semester of coursework. Grade of C or better must be earned in this seminar to pass. If this requirement is not met, the student must repeat the course. Milestone: all courses have been taken for the degree except those left in the last semester, including this course. If fall or spring, no more than 15 hours can be left; if summer, no more than 12 hours can be left. Prerequisite: SOCW 6451 or SOCW 6851

### **SOCW6306 – CLINICAL ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Reviews and builds on the fundamentals of clinical assessment. Topics are covered in considerable depth and practiced with social work clients. Advanced topics include behavioral observation, self-anchored rating scales, client surveys, standardized measurement and scales, single-subject designs, family assessment tools and categorical systems. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6310 – SEMINAR IN GENDER ISSUES**

**3** Lecture Hours · **0** Lab Hours

Explores women's issues in human behavior theory, practice theory, and policy. The historical, political, and socioeconomic forces that maintain sexism are discussed. Environmental influences are examined in relation to social justice, social work values, knowledge, and skills. Prerequisite: SOCW 5301, SOCW 5317.

### **SOCW6311 – SEMINAR IN DIRECT METHODS IN COUPLES COUNSELING**

**3** Lecture Hours · **0** Lab Hours

Examination of various psychological, social, and cognitive-behavioral treatment approaches to problems in intimate coupling. Emphasis is placed on the assessment of the sources and patterns of dissatisfaction and conflict, the selection and ordering of treatment strategies, and application of treatment techniques consistent with determined goals. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

### **SOCW6312 – GROUP DYNAMICS I AND SOCIAL WORK PRACTICE**

**3** Lecture Hours · **0** Lab Hours



Examines contemporary social-psychological concepts and small group research, with a view to testing their applicability to practice propositions and operational principles, in work with both task and personality satisfaction groups. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6314 – ADVANCED ADMINISTRATIVE PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Focuses on selected topics, issues, and skills for effective social work administration. Content includes leadership, worker motivation, resource development, interagency relations and managing conflict and diversity in a climate of scarce resources. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6315 – ADVANCED COMMUNITY PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Focuses on topics, issues, and skills for mobilizing neighborhoods, communities, and client groups to solve collective human problems. Content includes the politics of empowerment, mobilizing coalitions, locating resources, and mediating conflict. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6317 – DIRECT PRACTICE IN HEALTH CARE**

**3** Lecture Hours · **0** Lab Hours

Explores the central contribution of social work to comprehensive health care and health in environment theory and evidence; advanced knowledge and skills in human behavior theory relevant to health care, as well as social work interventions to assess and ameliorate the psychological effects of illness and disability, are included along with emerging roles for social work in prevention and health maintenance. Prerequisite: SOCW 6325.

### **SOCW6318 – DIRECT PRACTICE WITH AGING**

**3** Lecture Hours · **0** Lab Hours

Course presents an overview of current issues in the care, treatment, and delivery of social services to the aging. Students learn practice procedures designed to equip them with the skills needed for effective social work practice and review major theories on aging. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6319 – SOCIAL POLICY AND MENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

Studies programs and policies in the field of mental health. An analytical model is employed in the process of examining critical issues in the mental health arena. Prerequisite: SOCW 5303.

### **SOCW6320 – PERSONAL RELATIONSHIPS**

**3** Lecture Hours · **0** Lab Hours

Explores theoretical and empirical data on diverse personal relationships at the follow stages of relationship: initiation, maintenance, and termination. Identifies areas for intervention. Prerequisite: SOCW 5301 and 5317.

### **SOCW6323 – PERSPECTIVES IN MENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

Examines and analyzes theories of mental health and disorders, perspectives on the etiology and epidemiology of mental disorder and the societal response to problems in mental health of vulnerable and oppressed populations. Prerequisite: SOCW 5301, SOCW 5317.

### **SOCW6324 – RESEARCH AND EVALUATION METHODS IN SOCIAL WORK II**

**3** Lecture Hours · **0** Lab Hours

This course is designed to provide students with an understanding of and ability to analyze, monitor, and evaluate evidence informed interventions and human service programs. In this course quantitative and

qualitative research methods and approaches are applied to the scientific and ethical evaluation of evidence informed interventions and human service programs. Research skills and knowledge are presented from the perspective of promoting diversity and social and economic justice in the evaluation of social work. Prerequisite: SOCW 5322 or advanced standing status.

### **SOCW6325 – ADVANCED MICRO PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Builds on the generalist perspective and the basic familiarity with social work processes (such as problem identification, assessment, contracting, plan implementation, and outcome evaluation) in the context of (1) existing psychotherapeutic modalities, and (2) the particular client characteristics that lend themselves to specific change modalities. Required of all DP students. Prerequisite: SOCW 5304, SOCW 5310, and SOCW 5551.

### **SOCW6326 – DIRECT PRACTICE WITH CHILDREN AND FAMILIES**

**3** Lecture Hours · **0** Lab Hours

Focuses on the characteristics, strengths, and service needs of children and their families. Addresses assessment and intervention skills to work effectively with a variety of child, parent(s), and family problems. Specific techniques considered include child therapy, play therapy, behavioral contracting, cognitive-behavioral interventions, and crisis intervention. Required of all DP students specializing in Children and Families. Prerequisite: SOCW 6325 or concurrent enrollment.

### **SOCW6328 – SOCIAL POLICY RESEARCH AND ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Seminar examining methods for analyzing social policies and for assessing effects of policy. Students evaluate and apply different models for social policy analysis, including comparative models. Students work with social indicators and other data sources used in policy research. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6329 – SOCIAL WORK, LAW, AND THE FAMILY CODE**

**3** Lecture Hours · **0** Lab Hours

Overview of legal principles and procedures as they apply to social workers and their interaction with clients. Particular attention given to the broad area of family law. Areas of mental health law, children's rights, consumerism, malpractice, courtroom testimony, criminal law, estates, and community legal services covered. This course is an elective only; does not meet the requirements for a second year policy course. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment. CAP students: SOCW 6371.

### **SOCW6330 – CHILD DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Reviews and analyzes theoretical and empirical approaches to understand the development of children through adolescence; explores implications for practice and policy with children and adolescents. Prerequisite: SOCW 5301 and SOCW 5317.

### **SOCW6331 – THEORIES OF FAMILY**

**3** Lecture Hours · **0** Lab Hours

Reviews a variety of theoretical approaches useful in understanding the family. Implications for practice at the policy, community, and interpersonal levels are discussed. Prerequisite: SOCW 5301 and 5317.

### **SOCW6332 – ADULT DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Explores selected issues and analyzes theories related to early and middle adulthood. Issues pertinent to practice, such as the developmental change processes of diverse populations, are also examined. Prerequisite: SOCW 5301 and SOCW 5317.



### **SOCW6333 – AGING IN AMERICAN SOCIETY**

**3** Lecture Hours · **0** Lab Hours

This course presents the major theories of aging, in the United States and across cultures, and explores the diverse factors of aging from various perspectives including psychological, biological, sociological, and spiritual. Theories are integrated into practice thus providing students a sound foundation for social work practice with older adults. Students develop skills for completing multi-dimensional assessments, and effective social work interventions with and on behalf of older adults. Prerequisite: SOCW 5301 and 5317.

### **SOCW6334 – WOMEN AND FAMILY POLICY**

**3** Lecture Hours · **0** Lab Hours

Policies affecting women and the family; interaction of women with other social institutions (family, economy, policy); the unique impact of policies upon families and women of color; cross cultural comparisons and political strategies; the role of the social work profession in this policy field. Prerequisite: SOCW 5303.

### **SOCW6336 – DIRECT PRACTICE IN MENTAL HEALTH**

**3** Lecture Hours · **0** Lab Hours

Focuses on assessment and intervention with those evidencing acute and chronic mental health problems and disabilities. The course addresses the delivery of services to various populations (children, adolescents, and adults), service delivery systems (community mental health, managed behavioral health care), and a wide range of problems. Topics include well-being, ethics, case management, treatment planning, managed care, DSM, PIE, and substance abuse. Required of all DP students specializing in Mental Health. Prerequisite: SOCW 6325.

### **SOCW6337 – PSYCHODYNAMICS**

**3** Lecture Hours · **0** Lab Hours

Applies psychodynamic theory derived from Freud and ego psychologists to the life cycle. Draws implications for social work practice with diverse groups. Prerequisite: SOCW 5301 and SOCW 5317.

### **SOCW6338 – SOCIAL SERVICES AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Broad acquaintance with, and analysis of, the social services and their role within social welfare policy. A variety of social services examined as well as modes and methods of providing these services, degree of effectiveness of various services in adequately serving clients, service gaps or duplication, and related areas. Prerequisite: SOCW 5303.

### **SOCW6339 – PROGRAM EVALUATION**

**3** Lecture Hours · **0** Lab Hours

Presumes basic research competence on part of student. Focus on sociopolitical aspects of program evaluation as a specialized use of scientific methods and community practice skills. Relationships between program evaluation and program planning or administration stressed. Prerequisite: SOCW 5322. CAP students: SOCW 6371 or concurrent enrollment.

### **SOCW6340 – ADVANCED RESEARCH METHODS IN HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Acquaints students at an advanced level with research methodology as it applies to the human services. Includes techniques and tools of research, problem conceptualization, measurement, research and instrument design and data collection methods. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6341 – ADVANCED STATISTICAL METHODS IN HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Advanced statistical applications in the human services. Emphasis on multivariate statistical approaches including multiple regression analysis, logistic regression, structural model analysis using LISREL or EQS. Prerequisite: SOCW 6347.

## **SOCW6342 – HUMAN BEHAVIOR IN MACRO ENVIRONMENTS**

**3** Lecture Hours · **0** Lab Hours

Offers advanced students the opportunity to study people's behavior within large and complex social settings including: natural helping networks and ontological communities, organizations and bureaucracies, and social and political movements. Meets the advanced Human Behavior requirement for students pursuing the Community and Administrative Practice (CAP) specialization. Prerequisite: SOCW 5301 and SOCW 5317 or advanced standing status.

## **SOCW6343 – INTIMATE PARTNER VIOLENCE**

**3** Lecture Hours · **0** Lab Hours

This course covers theoretical frameworks for understanding and addressing intimate partner violence as well as culturally sensitive prevention and intervention practice models. Prerequisite: SOCW 6325; Co-requisite: SOCW 6326 or SOCW 6336.

## **SOCW6344 – TREATMENT OF CHILDREN AND ADOLESCENTS**

**3** Lecture Hours · **0** Lab Hours

Overview of the literature which describes physical, psychological, and cultural characteristics unique to childhood and adolescence. Attention then turned to treatment principles, and the specification of procedures for the amelioration of problems common to children and adolescents. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6345 – HEALTH POLICY**

**3** Lecture Hours · **0** Lab Hours

Historical, current, and projected national and local health policies and roles of providers and consumers of health care examined; service demands, economic, access, and regulatory issues analyzed; relationships between governmental, voluntary, and commercial sectors studied; analytic frameworks for the understanding and development of policies developed. Prerequisite: SOCW 5303.

## **SOCW6346 – TEACHING PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Introduces students to the academic role through teaching practice at graduate and/or undergraduate level supervised by a full-time faculty member. Prerequisite: SOCW 6328, 6340, 6348, 6373.

## **SOCW6347 – INTERMEDIATE STATISTICS**

**3** Lecture Hours · **0** Lab Hours

Statistical applications for doctoral social work students. Emphasizes both parametric and non-parametric techniques, including t-tests, ANOVA, correlation and regression, chi-square, and other non-parametrics. Designed to provide a foundation for advanced multivariate statistical techniques. Prerequisite: acceptance into the Ph.D. program.

## **SOCW6348 – SEMINAR IN QUALITATIVE RESEARCH METHODS**

**3** Lecture Hours · **0** Lab Hours

Explores a variety of qualitative approaches to knowledge building and research. Designed to prepare students to carry out research projects within their areas of interest. Content includes discussions of knowledge development, study designs, data collection, analysis, and report writing. Prerequisite: acceptance into the Ph.D. program.

## **SOCW6349 – AGING AND SOCIAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Social welfare policies and programs are examined in terms of the overall impact on the aged and society. Needs and gaps in services to the aged are evaluated, especially concerning minority and low-income aged. Current issues in aging policy are examined. Prerequisite: SOCW 5303.

## **SOCW6350 – SEMINAR IN COGNITIVE-BEHAVIORAL INTERVENTION STRATEGIES**

**3** Lecture Hours · **0** Lab Hours

Explores the integration of cognitive-behavioral and constructivist intervention methods in the treatment of various problems and clinical populations. The theoretical bases of cognitivism, behaviorism, and constructivism are identified and current issues in cognitive-behavioral and in constructivist methods are addressed. Assessment and interventions taught in this course are drawn from evidence-based practice knowledge and informed practice wisdom. Client strengths and individual empowerment are emphasized in formulating assessment and intervention strategies. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6353 – SEMINAR IN FAMILY THERAPY**

**3** Lecture Hours · **0** Lab Hours

Comparison of various approaches to working with the family as a total system; enhancement of cognitive understanding of similarities and differences in theory and goals of family treatment in many fields of practice; integration of strategies and techniques of each method into an individual style of therapy. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6354 – SOCIALLY OPPRESSED GROUPS, SOCIAL EXCLUSION AND SOCIAL JUSTICE**

**3** Lecture Hours · **0** Lab Hours

Past and present policies are examined related to people with disabilities, substance abusers, lesbians and gay men, juvenile delinquents, women convicted of criminal offenses, sex offenders and others who for various reasons experience social exclusion, stigma and social control. Theoretical bases of societal reaction to these groups and the impact on social policy and social work practice is considered. Prerequisite: SOCW 5303.

## **SOCW6356 – SEMINAR IN PROGRAM AND PRACTICE EVALUATION**

**3** Lecture Hours · **0** Lab Hours

This course provides hands on opportunities to develop program and clinical evaluation plans for social work/welfare agencies. Educational principles and theoretical foundations are discussed as the actual plans are developed. Students work with agency decision makers and the instructor to generate a plan acceptable to the agency for implementation. Prerequisite: SOCW 6347.

## **SOCW6358 – SOCIAL WORK SUPERVISION**

**3** Lecture Hours · **0** Lab Hours

Introduces the roles, functions, and contexts of social work supervision. Covers administrative and clinical perspectives on the social work supervisor as manager, educator, mentor, mediator, and leader in human service organizations. Prerequisite: Community and Administrative Practice (CAP) students: SOCW 6371 or concurrent enrollment. Direct Practice (DP) students: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

## **SOCW6359 – SOCIAL WORK IN SCHOOLS**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to provide an overview of the various social work related theoretical perspectives, models, and programs for intervention with children and their families in the school setting. This includes skills in assessment, prevention, and intervention in providing services to "high risk" students, such as students in poverty and students with disabilities, and addressing issues such as teen parenting, drug and alcohol abuse, and conflict management in the school setting. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

## **SOCW6360 – CLINICAL ASSESSMENT OF CHILD MALTREATMENT**

**3** Lecture Hours · **0** Lab Hours

Examines knowledge/technique in child physical/emotional/sexual abuse, physical/emotional neglect, and exploitation interventions. Includes interviewing, identification, legal issues, assessment/evaluation, case

management, intervention, follow-up. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

### **SOCW6361 – STRESS, CRISIS, AND COPING**

**3** Lecture Hours · **0** Lab Hours

The impact of specific crises on individuals and families will be examined. Typical crises will include life-threatening illness, trauma, physical and mental disability, and death. Assessment and evaluation of an individual's coping ability and appropriate strategies for social work interventions will be studied. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6363 – BUDGETING AND FINANCIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Basic overview of financial management applied specifically to human service agencies; emphases on basic concepts and skill building in budgeting, and fund raising; accounting principles, financial statements, and computerized financial information systems also covered. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6365 – SEXUAL AND GENDER IDENTITIES**

**3** Lecture Hours · **0** Lab Hours

Reviews various life experiences, challenges and psychosocial theories affecting lesbian, gay, bisexual, and transgender persons. Identifies social work interventions. Prerequisite: SOCW 5301 and SOCW 5317 or advanced standing status.

### **SOCW6367 – SEMINAR IN ADVANCED STATISTICAL APPLICATIONS**

**3** Lecture Hours · **0** Lab Hours

This seminar covers statistical analysis of experimental designs, the General Linear Model and other advanced statistics. The course focuses on applications of statistics using various data sets. Prerequisite: Knowledge of SPSS; SOCW 6341 and 6347.

### **SOCW6368 – SEXUAL ABUSE OF CHILDREN: IDENTIFICATION, ASSESSMENT, CASE MANAGEMENT AND TREATMENT**

**3** Lecture Hours · **0** Lab Hours

Seminar focused on examination of current knowledge and intervention strategies related to child sexual abuse. Topics addressed include techniques of obtaining information, sexual assault assessment procedures, validation, case management, application of change methods, case monitoring and relapse prevention. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment.

### **SOCW6369 – INTRODUCTION TO HUMAN SEXUALITY AND SOCIAL WORK PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Overview of human sexuality as it relates to social work practice. Human sexuality considered from a biopsychosocial perspective. Emphasis on viewing human sexuality as an interactive process of the total personality. Attention given to various psychological, social and behavioral educational/treatment approaches. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6370 – TREATING PARENT-CHILD RELATIONSHIPS**

**3** Lecture Hours · **0** Lab Hours

Treatment strategies and evaluation methods and research findings relevant to the treatment of parent-child relationships; review of existing parent training literature and commercially available parenting programs. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6371 – COMMUNITY AND ADMINISTRATIVE PRACTICE**

**3 Lecture Hours · 0 Lab Hours**

Surveys theory and builds skills in roles associated specifically with community practice (e.g. community/locality development, social planning, social action) and administrative practice (e.g. supervision, administration, management and management systems). Students complete an advanced assignment in community and/or organizational assessment and program design. Required of all CAP (Community and Administrative Practice) students. Prerequisite: Advanced Standing Student or SOCW 5306, SOCW 5310, and SOCW 5551.

### **SOCW6373 – THEORY AND MODELING BUILDING IN SOCIAL WORK RESEARCH**

**3 Lecture Hours · 0 Lab Hours**

This course gives special emphasis on ways in which theory informs social work research. This course prepares students to perform application and critical analysis of social science and social work theory and theory-driven research. The course involves students in integrating theory, research, and social work practice with the goal of producing models of interventions, programs, and policies. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6380 – TREATMENT OF ADDICTIVE BEHAVIORS**

**3 Lecture Hours · 0 Lab Hours**

Surveys major treatment alternatives, showing addictive behavior patterns such as alcohol/drug abuse or eating disorders. Student conducts field research of 12-step programs, practices interventions, and studies inpatient and outpatient treatment methods with emphasis on relapse prevention. Prerequisite: SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6384 – MANAGEMENT OF CHILDREN'S AGENCIES AND PROGRAMS**

**3 Lecture Hours · 0 Lab Hours**

Course prepares students for mid-management and administrative roles in public and private child-serving agencies and programs. Includes content about state licensure of child care agencies and administrators and of child placing agencies and administrators, as well as about the legal aspects of child welfare practice. Emphasizes the community context of practice and how agencies can adapt their work to the cultural milieu of clients and others in the environment. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6385 – SOCIAL WORK AND MANAGED CARE**

**3 Lecture Hours · 0 Lab Hours**

Explores the history of managed care in health and social services, the underlying philosophy, and current trends and practice issues. Assesses the potential for conflict between social work values and managed care systems. Builds skills for administrative roles in managed care settings. Prerequisite: SOCW 6371 or concurrent enrollment.

### **SOCW6386 – GRANT PROPOSAL DEVELOPMENT SEMINAR**

**3 Lecture Hours · 0 Lab Hours**

Grant proposal development is a fundamental method of accessing funds and developing new programs in the social service arena. In this class, students will identify key funding opportunities in their fields of interest and will write a proposal using an actual federal application and a foundation funding announcement. The majority of the course will be devoted to the development of the skills and knowledge necessary to produce a competitive proposal. These include, but are not limited to: a) needs and capacities assessment, b) program development, c) strategic planning, d) budgeting, e) evaluation, and f) community collaboration. The prerequisite for this course is SOCW 6371 (or concurrent enrollment) or SOCW 6325; SOCW 6326 or concurrent enrollment; or SOCW 6336 or concurrent enrollment.

### **SOCW6387 – CHILD AND YOUTH POLICY**

**3 Lecture Hours · 0 Lab Hours**

The course centers on a critical examination of current and proposed social policies impacting "at-risk" children and youth. An analytical approach to address the wide arena of national, international, and state child and youth social policies that mandate child custody, health, education, economic supports, juvenile justice, and child protection services. Emphasis will be placed on the role of the social work practitioner in enhancing the well being of children and youth through social policy analysis, development,

implementation, and reform. Prerequisite: SOCW 5303.

### **SOCW6389 – BRAIN AND BEHAVIOR**

**3** Lecture Hours · **0** Lab Hours

This course is a second-year blended option in the HBSE, Direct Practice, and CAP sequences. The focus of this course is on current advances in knowledge of the neurobiological underpinnings of human behavior and development, the interaction between those underpinnings and the social context and environment, the relevance to social work practice with individuals, families, groups, programs/organizations, and communities, and related assessment and intervention practice behaviors across several practice domains. The domains include human development, genetics, mental health and substance abuse, cognition, stress and trauma, and violence and aggression. The implications of neurobiological and environmental influences (including public health issues and health disparities) will be examined in terms of social justice, social work values, knowledge, and skills, as well as in terms of the structural and systematic arrangement and delivery of social welfare services at the micro, mezzo, and macro levels. Prerequisite: SOCW 5301 and SOCW 5317.

### **SOCW6390 – TUTORIAL**

**3** Lecture Hours · **0** Lab Hours

Arrangements may be made for a directed and supervised tutorial in a select area of special interest to the student.

### **SOCW6392 – SELECTED TOPICS IN SOCIAL WELFARE**

**3** Lecture Hours · **0** Lab Hours

Topics vary from semester to semester depending on the needs and interest of the students. Prerequisite: permission of instructor.

### **SOCW6393 – THESIS RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Initial research in the student's area of concentration, leading to thesis. Prerequisite for 6398. Prerequisite: permission of instructor.

### **SOCW6394 – APPLIED RESEARCH PRACTICUM**

**3** Lecture Hours · **0** Lab Hours

Students engage in an active program of applied research under direct supervision of a faculty member.

### **SOCW6396 – SOCIAL WORK EDUCATION: PRINCIPLES AND SKILLS**

**3** Lecture Hours · **0** Lab Hours

Considers a range of ideas in educational thought relevant to the formulation of an analytical appraisal of social work education and training. Educational methods and skills relevant to social work are addressed and practice opportunities offered. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6397 – WRITING FOR PUBLICATION**

**3** Lecture Hours · **0** Lab Hours

This course will explore the world of academic publishing. Students will provide peer reviews of manuscripts, prepare and critique their ideas and draft sections of a manuscript, and present a final manuscript and publication plan. The intent is to help the students increase their chance of publishing manuscripts as a Ph.D. student and as a new faculty member. Although nothing can substitute for having information and research relevant for the field, the art of writing for publication should not be underestimated. Journal publishing, like any other human service endeavor, is easier as you become proficient. Most academics become proficient at communicating their ideas and research through trial and error. However, one's chances of becoming published can be increased by learning from experts in the field. Prerequisite: acceptance into the Ph.D. program.

### **SOCW6398 – THESIS**



**3 Lecture Hours · 0 Lab Hours**

Requires an individual research project in the individual's area of concentration, with a minimum of six semester hours total needed for the project. Satisfactory completion requires approval of the instructor in charge, a supervising committee appointed by the Dean of Graduate Studies. Defense in a final oral examination is required. Prerequisite: permission of the instructor.

### **SOCW6399 – DISSERTATION**

**3 Lecture Hours · 0 Lab Hours**

Preparation and submission of a doctoral dissertation in an area in social work.

### **SOCW6451 – APPLIED SOCIAL WORK PRACTICE II**

**4 Lecture Hours · 0 Lab Hours**

### **SOCW6452 – APPLIED SOCIAL WORK PRACTICE III**

**4 Lecture Hours · 0 Lab Hours**

### **SOCW6694 – APPLIED RESEARCH PRACTICUM**

**6 Lecture Hours · 0 Lab Hours**

Students engage in an active program of applied research under direct supervision of a faculty member.

### **SOCW6698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

Requires an individual research project in the individual's area of concentration, with a minimum of six semester hours total needed for the project. Satisfactory completion requires approval of the instructor in charge, a supervising committee appointed by the Dean of Graduate Studies. Defense in a final oral examination is required.

### **SOCW6699 – DISSERTATION**

**6 Lecture Hours · 0 Lab Hours**

Preparation and submission of a doctoral dissertation in an area in social work.

### **SOCW6851 – APPLIED SOCIAL WORK PRACTICE II**

**8 Lecture Hours · 0 Lab Hours**

Practical application of social work skills in real world environment. Student is assigned to field agency to enhance and practice learned theories. This course is 500 hours of direct client contact in agency setting as provided by the Field Experience Office. Prerequisite: SOCW 5310/5551 and SOCW 6325.

### **SOCW6999 – DISSERTATION**

**9 Lecture Hours · 0 Lab Hours**

Preparation and submission of a doctoral dissertation in an area in social work.

### **SOCW7399 – DOCTORAL DEGREE COMPLETION**

**3 Lecture Hours · 0 Lab Hours**

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours

may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
      - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## City and Regional Planning

School of Urban and Public Affairs

Web [www.uta.edu/supa/graduate/cirp.php](http://www.uta.edu/supa/graduate/cirp.php)

Phone 817.272.2338

Fax 817.272.5008

**551 University Hall**

---

### Degrees / Certificates

#### Master's Degrees

City & Regional Planning, M.CIRP.

#### Certificates

Developmental Review Certificate

Geographical Information Systems Certificate (GIS)

---

### Graduate Faculty

#### Graduate Advisor

[Karolyn Field](#)

#### Program Director

[Ivonne Audirac](#)

#### Professor

[Ardeshir Anjomani](#)

[Barbara Becker](#)

[Jianling Li](#)

#### Associate Professor

[Enid Arvidson](#)

[Carl Grodach](#)

#### Assistant Professor

[Karabi Bezboruah](#)

[Yekang Ko](#)

[Andrew Whittemore](#)

---

### Graduate Advisors

#### [Karolyn Field](#)

*City & Regional Planning, M.CIRP.*

#### [Anthony Valdez](#)

*City & Regional Planning, M.CIRP.*

---

## Department Information

### Courses

# Department Information

## Master's Degree Program in City and Regional Planning

- [General](#)
- [Mission](#)
- [Factors considered for admission to the CIRP Master's program](#)
- [Types of Admission](#)

## Dual Degrees

### Graduate Certificates

- [Certificate in Development Review](#)
- [Certificate in Geographic Information Systems](#)

### Ph.D. Program

- [Ph.D. in Urban Planning and Public Policy](#)

## Master's Degree Program in City and Regional Planning

### General

Located in the heart of the Dallas-Fort Worth Metroplex, the fourth largest metropolitan region in the U.S., the [City and Regional Planning Master's Degree Program](#) (MCRP) is situated in an optimal laboratory to study, analyze, and provide planning solutions to contemporary urban problems, such as sprawl, pollution, equity, carbon footprints, economic development, aging infrastructure, and, more generally, contributing to the development of sustainable cities and regions.

The program resides in the School of Urban and Public Affairs' (SUPA) whose [Institute of Urban Studies](#) provides student research and practical experience through the professional planning services it offers to cities across the state of Texas.

### Mission

The MCRP program prepares students for careers as professional planners with public, private and nonprofit organizations. It does this by training students to apply planning theory, knowledge, techniques, and skills to "real world" planning problems through coursework, studios, and internship opportunities.

UTA's City and Regional Planning Master's Degree Program is accredited by the [Planning Accreditation Board](#) (PAB). The program's mission, goals and objectives, and accreditation efforts are shaped in consultation with the MCRP Advisory Board composed of alumni and area practitioners.

### Factors considered for admission to the CIRP Master's program

The CIRP program takes a holistic approach to the application review process. Each applicant file is reviewed individually with equal consideration given to the quantitative and qualitative aspects of the student's record. A complete application includes:

- Graduate Record Exam (GRE) score: Writing (Exceptions: Outstanding UT Arlington)

graduates may qualify for GRE waiver providing they meet certain requirements)

- Undergraduate Grade Point Average (GPA): The undergraduate GPA based on the last 60 hours of course work as calculated by the Graduate School from the official transcript.
- Graduate Record Exam (GRE) scores: Verbal and Quantitative (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Letters of Recommendation attesting to the applicant's potential to do Master's-level work and complete the program. Letters for Master's programs should be from professors or supervisors at work ([download Letter of Recommendation form](#))
- Essay by applicant approximately one double-spaced page in length (approximately 250 words). The Essay is considered both for its content and quality of writing. The Essay should address the following questions: 1. Why do you want to earn a Master's degree in the program for which you are applying? 2. What relevant background and experience do you bring to the program? The essay can also include other concerns you'd like to bring to the attention of the Graduate Advisor or Master's Admissions Committee.
- Non-native English speakers only: TOEFL or IELTS scores (Exceptions: An applicant holding either a Bachelor's or a Master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, or IELTS score for admission purposes.)

### Waivers

i. Submission of GRE scores may be waived for applicants to SUPA master's programs. The student must have graduated from a commensurate bachelor's degree program at UT Arlington no more than three academic years prior to admission to the graduate program (as measured from the start of the semester for which admission is sought). A commensurate bachelor's degree program is one that is a normal feeder program for the master's degree program to which the student seeks admission. Undergraduate students in their final year of study are also eligible; in such cases, admission with the GRE waiver is contingent upon successful completion of the bachelor's degree. The student's UT Arlington grade-point average must equal or exceed 3.0 in each of two calculations: (a) in the last 60 hours of study as calculated for admission by the Graduate School; (b) in all undergraduate coursework completed at UT Arlington.

ii. Submissions of TOEFL or IELTS scores may be waived for applicants to SUPA master's programs who hold a Bachelor's or Master's degree from a regionally accredited U.S. college or university.

### Types of Admission

#### Unconditional Admission:

Applicants who meet all the following requirements will be considered for unconditional admission:

1. A preferred minimum Writing GRE score of 4.0
2. Minimum Undergraduate GPA of 3.0
3. A preferred minimum Verbal GRE score of 150 (450 if the test was taken before August 1, 2011), and a preferred minimum Quantitative GRE of 141 (450 if the test was taken before August 1, 2011)
4. Outstanding letters of recommendation
5. Strong, well-written personal essay
6. Non-native English speakers only: TOEFL scores of at least 550 (paper-based), 213 (computer-based), or 79 (iBT) with sectional scores that meet or exceed 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or, IELTS score of at least 6.5.

#### Probationary Admission:

Applicants who do not meet all requirements for Unconditional admission will be considered for Probationary admission on the basis of the strength of all the listed admission factors. Test scores

will not constitute the sole or primary basis for ending consideration of an applicant. Under Probationary admission, special course requirements or other conditions may be imposed by the SUPA Master's Admissions Committee. Applicants who meet all the standards for Unconditional admission except for deficiency in Writing GRE score will be considered for Probationary Admission conditional on completing an approved Writing course in their first semester.

**1. Other types of admission decisions pertaining to Master's applicants:**

- a. **Deferred:** Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admissibility can be determined, may be deferred until records are complete.
- b. **Provisional:** Applicants who are unable to supply all required documentation prior to the admission deadline but who otherwise appear to meet admission requirements may be granted Provisional admission pending submission of complete and satisfactory credentials before the end of the semester in which they have registered in a Provisional status.
- c. **Denied:** Applicants who fail to meet more than one of the admission requirements and for whom the SUPA Master's Admission Committee finds there is insufficient basis to justify any other kind of admission will be Denied admission. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

**Scholarship and Fellowship Criteria**

- Graduate students with a GPA of 3.0 or better who are enrolled in six hours or more are eligible to apply for competitive scholarships and fellowships.
- Scholarships and fellowships for Master's and Doctoral students will be competitively awarded based on consideration of the all admission criteria assessed by their admitting programs.

**SUPA Inadequate Academic Progress Point System**

A student may be subject to dismissal from the program if they accumulate 4 deficiency points during their Master's degree or their Ph.D. Students who complete a Master's degree at SUPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student's record by repeating a course or additional coursework.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

**Curriculum**

The program's curriculum imparts knowledge, skills and values necessary for entering the planning profession. The degree requires completion of 48 hours of study. The generalist core (33 hrs Professional Report or 36 hrs Thesis) is organized into three knowledge tiers: Theory (9 hrs), Analysis and Techniques (9 hrs), and Implementation and Plan Making (12 hrs), plus a Professional Report (3 hrs) or Thesis (6 hrs).

Although students are not required to specialize, with the assistance of the Graduate Advisor, they can choose electives (12 to 15 hrs) to build a program of study in: Urban Design and Redevelopment, Green Cities and Sustainability, or earn a Certificate in Geographic Information Systems (GIS) simultaneously with the degree. They can also build a hybrid program of study that takes advantage of the expertise of the program's faculty.

**Core Courses (33-36 hrs)**

- CIRP 5303** Planning History, Theory and Ethics
- CIRP 5310** Planning, Urban Development and Structure
- CIRP 5308** Metropolitan Sustainability and Plan Making
- CIRP 5363** Leadership and Communication Skills in the Planning Process

**CIRP 5318** Techniques of Planning Analysis I  
**CIRP 5330** Techniques of Planning Analysis II  
**CIRP 5304** Plan Implementation, Zoning, and Regulations  
**CIRP 5316** Land Use Planning Law  
**CIRP 5332** Project Studio or **CIRP 5331** GIS Workshop  
**CIRP 5380** Research Questions in Planning (taken in the penultimate semester)  
**CIRP 5397** Professional Report (3 hrs) **OR CIRP 5698** Thesis (6hrs)

**Elective Courses (12 to 15 hrs)\***

**CIRP 5305** Land Use, Management and Development  
**CIRP 5306** Urban Revitalization  
**CIRP 5309** Transportation/Land Use Modeling and Policy Analysis  
**CIRP 5311** Elements of Urban Design  
**CIRP 5313** Urban Growth Policies  
**CIRP 5322** Economic Development Planning and Policy  
**CIRP 5324** Community Development  
**CIRP 5325** Physical Planning and Urban Design  
**CIRP 5327** Intro to Green Cities and Transportation  
**CIRP 5331** GIS Workshop (CIRP 5357 prerequisite)  
**CIRP 5340** GIS and Suitability Analysis  
**CIRP 5341** Environmental Regulations, Laws, and Planning  
**CIRP 5350** Environmental Planning  
**CIRP 5351** Techniques of Environmental Assessment  
**CIRP 5356** Introduction to GIS  
**CIRP 5357** Intermediate GIS  
**CIRP 5361** Planning Internship

\*Other electives as approved by the Graduate Advisor

**Study Areas**

**Urban Design and Redevelopment (12 to 15 hrs)**

**CIRP 5325** Physical Planning and Urban Design  
**CIRP 5306** Urban Revitalization  
3 OPEN ELECTIVES

**Green Cities and Sustainability (12 to 15 hrs)**

**CIRP 5327** Intro to Green Cities and Transportation  
**CIRP 5350** Environmental Planning  
3 OPEN ELECTIVES

**Certificate**

**GIS Certificate** (12 - 15 hrs). Earned simultaneously with the degree.

**CIRP 5356** Introduction to GIS  
**CIRP 5357** Intermediate GIS  
**CIRP 5331** GIS Workshop  
**CIRP 5340** GIS and Suitability Analysis  
2 OPEN ELECTIVES

See the program's Graduate Advisor for a list of approved electives in each study area, or download a copy from the [MCRP webpage](#). Other courses may be substituted upon approval of the program's Graduate Advisor and/or Program Director.

**Thesis or Professional Report (6 hours thesis students; 3 hours thesis-substitute students)**

All MCRP students must enroll in CIRP 5380 Research Questions in Planning in their penultimate semester to prepare for the Thesis or Professional Report.

Thesis (minimum of 6 credit hours): This option is recommended for students who enjoy research and/or are interested in pursuing a career in research or private consulting, or who intend to obtain another advanced degree. However, this option is also available to students who intend to go into professional planning practice.

Thesis format and submission calendar must adhere to the Office of Graduate Studies' thesis criteria. Thesis students identify a committee chair no later than their penultimate semester and, in consultation with the chair, form a thesis committee consisting of at least three members of the SUPA Graduate Faculty. The thesis committee guides the student's development of research question and choice of research method and analysis. Thesis students must defend their thesis in a public oral examination- open to all members of the faculty- and before all members of the student's thesis committee. The thesis committee must have copies of the thesis at least two weeks prior to the thesis defense. All members of the student's committee must be present at the defense. Thesis students must be enrolled in the appropriate section of CIRP 5698 Planning Thesis (under their committee chair) during the semester they receive advise from their chair and committee for preparing the thesis, as well as during the semester they defend their thesis. Once the student is enrolled in the thesis course, continuous enrollment is required.

Professional Report (3 credit hours): This option is recommended for students who are going into professional practice and/or who desire additional experience beyond the Project Studio course by working on a professional report. This option does not preclude professional report students the opportunity of further pursuing an advanced graduate degree. Students identify a professional report committee chair no later than their penultimate semester and, in consultation with the chair, form a professional report committee consisting of at least three members of the SUPA Graduate Faculty. The professional report committee guides the student's choice of planning project and method of analysis. Professional report students must defend their report in a public oral examination- open to all SUPA graduate faculty and students- and before all members of the student's professional report committee. Professional Report students must be enrolled in the appropriate section (under their committee chair) of CIRP 5397 Professional Report the semester in which the professional report is defended.

## Dual Degrees

To participate in the **dual degree program**, students must make separate application to each program and must meet the admission requirements of each program. Students must be admitted to the second program before completing more than 24 credit hours in the first program and must complete the second degree within three academic years following completion of the first. By participating in a dual degree program, students may apply 6-18 total credit hours jointly to meet the requirements of both degrees, thus reducing the total number of hours required to earn each degree separately (shared courses are subject to approval by Program Advisors of each program). Degree plans, thesis or professional report proposals, and the final thesis or report must be submitted separately for each degree and approved by Program Advisors and relevant committees of each program. The successful candidate is awarded two degrees (not one joint degree).

Those interested in the dual degree program should consult the appropriate Program Advisors for further information and review the statement on Dual Degree Programs in the general information section of the catalog.

Dual degrees can be arranged with any suitable program. Arrangements for the following dual degrees have already been made between M.C.R.P. and the relevant Program Advisors.

M.C.R.P. and M.P.A. (Master of Public Administration)

M.C.R.P. and M.A. (Master of Arts in Urban Affairs)

M.C.R.P. and M.S.W. (Master of Social Work)

M.C.R.P. and M.Arch. (Master of Architecture)

M.C.R.P. and M.S.L.A. (Master of Science in Landscape Architecture)

M.C.R.P. and M.S.C.E. (Master of Science in Civil Engineering)/M.Engr. (Master of Engineering)

M.C.R.P. and M.S.Ev.S.E. (Master of Science in Environmental Science and Engineering)



MCRP students without a Bachelor's degree in Architecture take Path A in the architecture program; those with an undergraduate degree take Path B. All 15 credit hours of electives in the M.Arch. program must be taken in the MCRP program. Only in special instances may students select the thesis substitute plan of the MCRP program.

## Graduate Certificates

### Certificate in Development Review

Certificate Coordinator: Enid Arvidson; [enid@uta.edu](mailto:enid@uta.edu)

The Certificate in Development Review provides training in zoning, subdivision plat review, site design, communication skills, and urban development, while keeping in mind the interests of citizens and the spirit of places. These skills are essential for planners who want to understand proposed development activity, ensure that proposed development is consistent with a city's vision, and facilitate review of development proposals. The program is geared for both entry-level planners/planning technicians, and for professionals in allied fields such as architecture, landscape architecture, law, engineering, and real estate.

The certificate requires completion of 15 hours of graduate-level coursework. All students must take CIRP 5304 Plan and Policy Implementation. Two courses in land use and development are selected from: CIRP 5305 Land Use Planning, Management and Development; CIRP 5306 Urban Revitalization; CIRP 5316 Land Use Law; or CIRP 5322 Economic Development. One course in communication is selected from: CIRP 5308 Metropolitan Sustainability and Plan Making; or CIRP 5363 Leadership and Communication Skills in the Planning Process. Lastly, one course in agencies and policies is selected from: CIRP 5313 Urban Growth Policies or CIRP 5328/URPA 5326 Public Budgeting.

### Certificate in Geographic Information Systems

Certificate Coordinator: Jianling Li; [jili@uta.edu](mailto:jili@uta.edu)

The Geographic Information Systems (GIS) Certificate program is designed for students and professionals wishing to acquire skills in spatial data analysis. GIS is a powerful computer-based analytical tool used at all levels of government, in business, industry, and institutions. GIS skills are a must in many different fields including urban planning, engineering, geology, and the social sciences. In planning for instance, GIS skills provide professionals a spatial analytical edge with application in all areas of planning including land use, environmental, transportation and economic development planning.

Applying for admission to the GIS-Certificate program does not require the GRE or a degree in planning and should be done as a Non-Degree Seeking Special Applicant through the [Graduate School](#). To obtain the 15-credit hour certificate, students must maintain a GPA of 3.0 in their coursework.

Up to 12 GIS-certificate-credit hours earned as a special non-degree seeking student may be applied to the Master's degree in City and Regional Planning, subject to the policies on grades and graduate credit described in the [Graduate School catalog](#)

#### Required (9hrs)

CIRP 5356 Introduction to GIS

CIRP 5357 Intermediate GIS

CIRP 5331 GIS Workshop

And two electives with approval of the GIS Certificate Program advisor:

#### Electives (6hrs):

CIRP 5340 GIS & Suitability Analysis

GEOL 5323 Remote Sensing Fundamentals or

ARCH 5329, and 5340, CSE 5330 and 5356, GEOL 5303, and INSY 5310 and 5335.

## Ph.D. Program

### Ph.D. in Urban Planning and Public Policy

The UPPP Ph.D. program requires a minimum of 48 credit hours beyond the master's degree, including 39 credit hours of coursework and a minimum of 9 dissertation credit hours. The 39 credit hours of coursework include: 6 hours of leveling courses, 9 hours in the required core of urban planning and public policy, 6 hours of methods courses and 18 hours of elected field area courses. Courses and credit hours may be waived for students with relevant previous coursework upon approval of the dissertation supervisor and program director.

Coursework in the required core, which covers core knowledge and competencies in planning and policy, as well as the courses in the selected field areas prepares students for the field exam. At the end of or after their first semester, students select their committee based on their interests and take a diagnostic exam. The student's committee will then guide their course work, including any extra courses needed based on their diagnostic exam as well as dissertation proposal stages.

#### Application Requirements and Deadlines

Along with the Graduate School application requirements, a complete application includes:

1. Official transcripts from colleges and universities attended. Information about submitting transcripts is available in the Graduate Catalog; and
2. Official test score reports for the Graduate Record Exam (GRE) and, for international applicants, the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about submitting official test scores is available from the Graduate Catalog. The ETS code for UTA is 6013; and
3. Three Letters of Recommendation. Letters should attest to the applicant's ability to do Doctoral-level work and complete the dissertation. Letters must be from references who hold a Ph.D. degree; and
4. Essay by applicant approximately one double-spaced page in length (approximately 250 words). The essay is considered both for its content and writing quality. The essay should discuss research agenda, identify the faculty you wish to work with, and state the reasons for wanting to earn the Doctoral degree.

Official transcripts and test scores must be sent directly to the Graduate School by the institution and ETS respectively. Letters of recommendation and personal essay should be sent directly to: UPPP Admissions Committee, SUPA Box 19588, Arlington TX 76019 or email to the program's Graduate Advisor. It is the applicant's responsibility to ensure all application materials are received by February 1. Incomplete applications or applications received after the deadline will be deferred.

UPPP program admits doctoral students for fall and spring semester admissions. The application deadline for the UPPP program is February 1 for Fall semester and July 1 for spring semester.

#### Admission Criteria

Applicants may be admitted unconditionally with a graduate GPA of 3.6, a Verbal GRE score of at least 153 (500 if test was taken before August 1, 2011) and a Quantitative GRE score of at least 144 (500 if test was taken before August 1, 2011), except for international applicants who will also be required to have a score of 213 or higher on the TOEFL (550 or higher on the written TOEFL; 79 or higher on TOEFL iBT). Strength of letters of recommendation and quality of personal statement and Master's degree field of study are also considered.

or

Applicants may be unconditionally admitted with a GPA above 3.7 if they score at least 153 (500) on the Verbal and 140 (400) on the Quantitative subtests or if they score at least 144 (500) on the Quantitative and 146 (400) on the the Verbal subtests.

Applicants not admitted unconditionally may be considered for admission on probation based on factors mentioned above as well as multilingual proficiency, first generation graduate student from



family and community service experience. The Doctoral admissions committee will set the probationary conditions.

The admissions committee may defer the admission decision when a component of the application is incomplete. It may also admit a student provisionally when an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

### **Curriculum and Degree Requirements**

#### **Leveling Courses (6 hours)**

**CIRP 5303** Planning History, Theory and Ethics

**CIRP 5310** Planning, Urban Development and Structure

#### **Required Core Courses (9 credit hours):**

**UPPP 6300** Advanced Urban Theory

**UPPP 6311** Spatial Theory and Policy

**URPA 5306** The Urban Economy

#### **Methods Courses (6 hours):**

**CIRP 5317** Intermediate Data Analysis (also offered as URPA 5342)

**CIRP 5346** Qualitative Methods (also offered as URPA 5344) **or**

**URPA/CIRP 6346** Advanced Data Analysis (based on the Dissertation Committee decision)

### **Urban Planning and Public Policy Field Area Courses (18 hours):**

Students take 18 hours of courses in their elected field area of planning and/or policy, preparing the student for the dissertation and beyond. Courses are determined in consultation and approval with the student's dissertation supervisor and supervisory committee.

Students are encouraged to use faculty resources and the opportunities offered in SUPA and UTA to specialize in following field areas or their combinations:

- Urban Policy and Planning
- Physical Planning, Development and Urban Design
- Land Use/Transportation Analysis, Planning and policy
- Environmental Planning Policy/Sustainability

### **Dissertation (minimum 9 hours)**

#### **Organization**

#### **UPPP Diagnostic**

Students take a diagnostic exam in their first semester or minimum 9 hours of course work so that their supervisory committee can be selected and guide them in their selection of courses. When a student has completed their coursework, they will be given a field exam by their committee. Once the field exam is successfully completed, the student must start work on their dissertation proposal which must be defended within 6 months of their field exam.

#### **Deficiency & Field Courses**

The supervisory committee decides and guides on needed field areas and additional course work based on the deficiencies beginning from the diagnostics process, but more so during the proposal preparation stage and also in the Proposal Defense.

Deficiency courses can be on the selected field area or other needed courses. The final decision on deficiencies will be determined in the proposal defense session.

#### **POSSIBLE COURSES TO ENHANCE FIELD AREAS**

**CIRP 6301** Theoretical Foundations and Ph.D. Workshop (also offered as URPA 6301)

#### **Urban Policy and Planning**

**URPA 5304** Urban Politics  
**URPA 5305** Theories of Urban Society  
**URPA 5311** Social Policy Formation  
**URPA 5309** Intergovernmental Relations  
All SUPA policy courses

### **Physical Planning, Development and Urban Design**

#### **Physical Planning**

CIRP 5305 Land Use, Management and Development  
CIRP 5306 Urban Revitalization  
CIRP 5313 Urban Growth Policies  
CIRP 5340 Environmental/Land-Use Suitability Analysis Using GIS  
CIRP 5358 Intelligent Transportation Systems and Transportation Planning

#### **Urban Design**

CIRP 5311 Urban Design  
ARCH 5306 Urban Design  
LARC 5301 Site Planning and Development Processes  
LARC 5302 Land Development Planning  
LARC 5382 Seminar in Urban Design

#### **Real Estate Development**

CIRP 5345 Planning and Real Estate Development  
CIRP 5313 Urban Growth Policies  
REAE6390 – Seminar in Special Topics in Real Estate  
REAE5350 – Quantitative Methods for Real Estate

### **Land Use/Transportation Analysis, Planning & Policy**

#### **Urban Economics**

URPA 5306 Urban Economy  
CIRP 5322 Economic Development  
URPA 5312 Urban Economic Policy

#### **Land Use/Transportation**

CIRP 5309 Land Use Transportation Analysis & Modeling  
CIRP 5315 Transportation Policies, Programs and History  
CIRP 5305 Land Use, Management and Development  
CIRP 5340 Environmental/Land-Use Suitability Analysis Using GIS  
CIRP 5358 Intelligent Transportation Systems (ITS) and Transportation Planning  
CE 5328 Air Pollution  
CE 5338 System Evaluation  
CE 6306 Public Transit Planning and Operations  
CE 6308 Analytical Models in Transportation

### **Environmental Planning Policy/Sustainability**

#### **Environmental Policy Planning**

CIRP 5342 Environmental Policy (also listed as URPA 5317)  
CIRP 5341 Environmental Regulations: Laws and Planning  
CIRP 5350 Environmental Planning  
CIRP 5340 Environmental/Land-Use Suitability Analysis Using GIS  
CIRP 5351 Techniques of Environmental Assessment

#### **Environmental Science & Engineering**

EVSE 5310 Environmental Systems – Chemical Aspects  
EVSE 5311 Environmental Systems – Geological Aspects  
CE 5324 Transportation and Air Quality  
CE 5329 Environmental Risk Based Corrective Action  
CE 5355 Environmental Permitting

## Field Area Examination

Students are eligible to take the Field Area Examination after completing all courses. The Field Area Exam marks the end of coursework and the beginning of preparing dissertation research proposal. The student must be enrolled in the Graduate School in the semester in which he/she takes the field area exam.

The Field Area exam may result in: 1) unconditional pass and recommendation to proceed to the next phase of the program; 2) approval to remain in the program but a requirement to meet certain specified additional criteria; 3) failure, but with permission to retake the examination after a period specified by the examining committee; or 4) failure with recommendation not to continue in the program.

After the second failure at the Field Area Exam, the student will be dismissed from the program.

Upon successful completion of the Field Area Exam, students start work on their dissertation proposal which must be defended within six months of their field exam.

## Dissertation Proposal

Upon successful completion of the written field area examination, students will work in preparation of their dissertation proposal. This preparation may include independent study or structured courses and is guided by the student's Dissertation Committee. The Dissertation committee may advise the student to take URPA 6301 Theoretical Foundations and Ph.D. Workshop, which provides theoretical background and techniques to prepare the student for completing the dissertation proposal. Students must also work closely with their dissertation supervisor and committee to develop their dissertation proposal. A formal proposal defense must be held, and the proposal must be formally approved by the dissertation committee before the student may continue to complete the dissertation. The dissertation represents the culmination of the student's academic efforts and so is expected to demonstrate original and independent research activities and be a significant contribution to knowledge.

## Dissertation

A student receiving advice and assistance from a faculty member in the preparation of a dissertation must register for the appropriate course commensurate with the student's level of effort that is equivalent to an organized course of the same **credit value**. Once the student is enrolled in the dissertation course, continuous enrollment is required. The student must accumulate a minimum of nine dissertation hours to graduate.

The Graduate School offers Dissertation Seminars each semester and encourages all Dissertation students to attend.

Doctoral students must enroll in a minimum of 3 dissertation hours (7399) in the term designated as their completion term. Students may designate only one term as the completion term. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W or F and must enroll in a minimum of 6 hours of dissertation research (6699 or 6999) every term until graduation.

The dissertation defense is a public oral examination open to all members (faculty, students and invited guests) of the University community. Questioning of the candidate will be directed by the student's dissertation supervising committee. All members of the student's committee must be present at the defense. Although the defense is concerned primarily with the dissertation research and its interpretation, the examining committee may explore the student's knowledge of areas relevant to the core of the dissertation problem.

The dissertation defense may result in a decision that the candidate has 1) passed unconditionally; 2) passed conditionally with remedial work specified by the committee; 3) failed, with permission to be re-examined after a specified period; or 4) failed and dismissed from the program. The dissertation must be approved unanimously by the student's dissertation supervising committee and by the Dean of Graduate Studies.

## **CIRP Courses**

### **CIRP5191 – CONFERENCE COURSE**

1 Lecture Hour · 0 Lab Hours

Special subjects and issues as arranged by individual students and faculty members. May be repeated for credit.

### **CIRP5193 – MASTER'S COMPREHENSIVE EXAMINATION**

1 Lecture Hour · 0 Lab Hours

Directed study, consultation and comprehensive examination over coursework leading to thesis substitute for MCRP degree. Required of all thesis substitute students who were admitted to the MCRP program prior to Fall 2009 and who are not enrolled in thesis or other thesis substitute courses during semester in which they plan to graduate. Students beginning the MCRP program in Fall 2009 or after may not choose the Master's Comprehensive Examination as a thesis substitute option and may not enroll in this course.

### **CIRP5197 – PROFESSIONAL REPORT**

1 Lecture Hour · 0 Lab Hours

Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in CIRP 5193.

### **CIRP5297 – PROFESSIONAL REPORT**

2 Lecture Hours · 0 Lab Hours

Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in CIRP 5193.

### **CIRP5300 – FOUNDATIONS OF URBAN THEORY**

3 Lecture Hours · 0 Lab Hours

Spatial development of human settlements, their life cycles, expansion, and decay. Covers key theories of social, spatial, and economic structures of cities, nineteenth century to present. Considers influences of urban form and development on class, race, gender, and community.

### **CIRP5303 – PLANNING HISTORY, THEORY AND ETHICS**

3 Lecture Hours · 0 Lab Hours

Various theories of planning including rational comprehensive, communicative action, social learning, and radical planning. Sets theories within their historical contexts, and examines the social and political details of each era to show the development of diverse planning practices and theories of planning. Evaluates the values embodied in different theories and their relationship to practice and social justice, including planning ethics as contained in the AICP Code of Ethics and Professional Conduct.

### **CIRP5304 – PLAN IMPLEMENTATION, ZONING, AND REGULATIONS**

3 Lecture Hours · 0 Lab Hours

Introduction to plan preparation and implementation. Topics include zoning, subdivision regulations, form-based codes, site planning, strategic planning, and comprehensive planning.

### **CIRP5305 – LAND USE, MANAGEMENT AND DEVELOPMENT**

3 Lecture Hours · 0 Lab Hours

Assesses land use, management and development and considers new directions. Relates comprehensive planning, environmental management, and land use.

### **CIRP5306 – URBAN REVITALIZATION**

**3 Lecture Hours · 0 Lab Hours**

Examines various urban revitalization projects from coordinated, large-scale ventures to grassroots and informal neighborhood initiatives. Emphasis on the history, logic, politics, and implementation of these projects as well as their physical, social, and economic outcomes.

### **CIRP5307 – URBANIZATION IN THE DEVELOPING WORLD**

**3 Lecture Hours · 0 Lab Hours**

Explores the social, political and spatial dimensions of urbanization processes in developing countries. Covers urban, social, and cultural movements as well as development, processes of urban-rural migration, and globalization. The course will cover all developing regions of the world with an emphasis on Latin American countries.

### **CIRP5308 – METROPOLITAN SUSTAINABILITY AND PLAN MAKING**

**3 Lecture Hours · 0 Lab Hours**

Provides the background for sustainability planning at the city and metropolitan levels including plan making (e.g., comprehensive plans, small area plans, functional plans, etc.). Explores the relationship of environmental sustainability to economic vitality and social equity including planning ethics.

### **CIRP5309 – TRANSPORTATION/LAND USE MODELING AND POLICY ANALYSIS**

**3 Lecture Hours · 0 Lab Hours**

Overview of transportation/land use with specific transportation models and simulation methods; topics include economic theory of travel demand, land use models, UTPS framework for travel demand estimation, disaggregated travel demand models and abstract mode models.

### **CIRP5310 – PLANNING, URBAN DEVELOPMENT AND STRUCTURE**

**3 Lecture Hours · 0 Lab Hours**

Overview of functional areas of planning (e.g., urban design, housing, transportation, etc.); fundamentals of urban structure and development of cities and regions including environmental, social, economic, and political factors and issues affecting urban settlements; global dimensions of planning.

### **CIRP5311 – ELEMENTS OF URBAN DESIGN**

**3 Lecture Hours · 0 Lab Hours**

Study of contemporary urban form and environmental design, emphasizing visual-spatial qualities, social needs and economic linkages. Examination of processes, methods and techniques for solving urban design problems.

### **CIRP5312 – STRATEGIC PLANNING, POLICY AND MANAGEMENT**

**3 Lecture Hours · 0 Lab Hours**

Readings and case studies of strategic planning and management in the public and non-profit sectors; application of principles to an actual situation, involving stakeholder identification, environmental scanning, and formulation of mission statements, goals, and strategies. Offered as CIRP 5312 and URPA 5357. Credit will be granted only once.

### **CIRP5313 – URBAN GROWTH POLICIES**

**3 Lecture Hours · 0 Lab Hours**

Study of the political, societal and physical policies involved in urban growth management.

### **CIRP5315 – TRANSPORTATION POLICIES, PROGRAMS AND HISTORY**

**3 Lecture Hours · 0 Lab Hours**

Transportation and related programs and policies in relation to city development and housing patterns. Interdependencies of land use, building development, and social change are explained as transportation-

related.

### **CIRP5316 – LAND USE PLANNING AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Explores the law of land use in the context of the American legal, economic, and political systems. Examines leading court decisions and precedents for their background, content, and applicability to contemporary land use. Offered as CIRP 5316 and URPA 5331. Credit will be granted only once.

### **CIRP5317 – INTERMEDIATE DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An intermediate level examination of statistical and research techniques appropriate to urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, Analysis Of Variance (ANOVA), logit and probit models, and techniques for data reduction (e.g., factor analysis). Prerequisite: URPA 5302. Offered as URPA 5342 and CIRP 5317; credit will be granted only once.

### **CIRP5318 – TECHNIQUES OF PLANNING ANALYSIS I**

**3** Lecture Hours · **0** Lab Hours

Introduction to analytical techniques used in urban and regional planning. Topics include: census data and geography and introduction to GIS, demographic analysis, cost-benefit analysis, economic base analysis, gravity models, and displaying and communicating data analysis and results in graphic, written, and oral forms.

### **CIRP5319 – AGENCIES OF PLANNING AND ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Contemporary managerial functions involved in running public, private, or non-profit organizations: goal setting, planning, organizing, delegating and motivating others, personal productivity and motivation, time and stress management, controlling, and project management.

### **CIRP5320 – DATABASE MANAGEMENT FOR URBAN PLANNING AND ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Concepts and computer applications of data management. Topics include data sources, data models, database design, data query, data analysis, and database management techniques for urban planning, management and administration. Credit will be given only once.

### **CIRP5321 – VISUAL BASIC AND GIS**

**3** Lecture Hours · **0** Lab Hours

Provides an introduction to the techniques and applications of computer graphics and mapping for presenting socioeconomic information in graphic and spatial form.

### **CIRP5322 – ECONOMIC DEVELOPMENT PLANNING AND POLICY**

**3** Lecture Hours · **0** Lab Hours

Introductory seminar in subnational economic development programs in the U.S. Covers basics of location theory, economic planning, budgeting, incentives, public and private revenue sources, analysis methods such as central place and economic base, intergovernmental efforts, redevelopment, high tech, trade and/or tourism.

### **CIRP5323 – HISTORIC PRESERVATION**

**3** Lecture Hours · **0** Lab Hours

Covers elements of historic designation, rehabilitation, financial incentives, district regulations, and preservation impacts.

## **CIRP5324 – COMMUNITY DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on current problems of community development and neighborhood revitalization. Housing, community assets, the roles of community development corporations and social capital in cities, and community economic development will be analyzed. Federal, state, and local policies, with grassroots initiatives evaluated for effectiveness on promoting alternatives for community building and organizing. Also offered as URPA 5313; credit will be granted only once.

## **CIRP5325 – PHYSICAL PLANNING AND URBAN DESIGN**

**3** Lecture Hours · **0** Lab Hours

Introduction to basic concepts in urban design and physical planning. Provides an understanding of how built environments evolve, and how they can be creatively planned and designed so as to meet social and ecological goals. Special attention to principles and analyses related to the physical planning of neighborhoods and streets, as well as patterns of urban form and public places.

## **CIRP5326 – CULTURAL PLANNING AND URBAN DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course examines 1) the composition of the creative economy in cities around the world, 2) arts, culture, and creative economy planning and policy efforts at the neighborhood, city, and regional levels, and 3) the social, spatial and political ramifications of these efforts and of the creative economy broadly.

## **CIRP5327 – INTRODUCTION TO GREEN CITIES AND TRANSPORTATION**

**3** Lecture Hours · **0** Lab Hours

Introduction to concepts of green cities and transportation, environmental and transportation challenges, and school of thoughts on causes of environmental and transportation problems, with emphasis on planning practices and policies in relation to environmental and transportation issues and roles of planners in shaping urban landscape and infrastructure.

## **CIRP5328 – PUBLIC BUDGETING**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the principles and practices used by federal, state, and local governments to acquire and spend revenues within the context of American democracy, capitalism, federalism, and economics. The primary objective of this course is to provide students with the practical skills and theoretical knowledge to enable them to be effective participants in the budgeting process and critical consumers and producers of research relevant to public budgeting. Offered as CIRP 5328 and URPA 5326. Credit will be granted only once.

## **CIRP5329 – PUBLIC CAPITAL BUDGETING**

**3** Lecture Hours · **0** Lab Hours

Examines governmental capital budgeting processes with a focus on understanding the significance of capital improvement planning, public facility investment, and project evaluation to sound infrastructure financing and regional economic growth. Governments purchase or construct long-lasting physical assets or facilities financed mostly through borrowing. This course aims to understand the rationale for public capital budgeting and debt instruments used to finance capital investment in the political context of public budgeting in America. Offered as URPA 5332 and CIRP 5329; credit will be granted only once.

## **CIRP5330 – TECHNIQUES OF PLANNING ANALYSIS II**

**3** Lecture Hours · **0** Lab Hours

Introduction to research methods, both quantitative and qualitative and mixed methods. Relating planning problem identification and definition with appropriate method of data gathering and analysis. Analysis and interpretation of qualitative and quantitative data including interview and small group techniques, and basic statistical analysis. Communication of analysis results in graphic, written, and oral forms.

## **CIRP5331 – GIS WORKSHOP**

**3** Lecture Hours · **0** Lab Hours



Skills, practical experience, problem-solving methods and techniques in geographic information systems. Capstone course for GIS Certificate Program; substitutes for one Project Planning Course.

### **CIRP5332 – PROJECT STUDIO**

**0** Lecture Hours · **3** Lab Hours

Studio course working on applied city and regional planning projects within the Dallas-Fort Worth area or elsewhere. Provides students with practical experience in collaborative teamwork and the application of skills, methods, and techniques in city and regional planning, including citizen participation, problem analysis, mapping, design, presentation, working with clients, and applied planning process. Should be taken in the second half of the student's program of study, with exceptions for those with applied planning experience. May be repeated as topic changes.

### **CIRP5340 – GIS AND SUITABILITY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Acquaints students with theoretical and practical aspects of suitability analysis process or activity allocation on land use/environmental policies. Uses Geographic Information System (GIS) and computer models for overlaying map analysis, buffering, market demand and activity locations, etc. to incorporate environmental and ecological factors into the determination of land development potential including soils, slope, drainage, vegetation, and related factors.

### **CIRP5341 – ENVIRONMENTAL REGULATIONS: LAWS AND PLANNING**

**3** Lecture Hours · **0** Lab Hours

Federal, state, and local environmental regulations which have effect on the practice of city and regional planning. Specific articles, laws, and directives contrasted and compared to local city design and development controls. Subjects include CERCLA, RCRA, SARA, TSCA, OSH Act, among others.

### **CIRP5342 – ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the physical environmental dimensions of urbanization including such factors as pollution, waste disposal, and land use; stresses the role of economic, social, and political institutions as these affect environmental quality of the city. Offered as CIRP 5342 and URPA 5317; credit will be granted only once.

### **CIRP5343 – FOUNDATIONS OF ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Explores how environmental controversy is rooted in conflict between a number of schools of environmental policy thought with divergent perspectives on issues such as how to define progress, how to balance the needs of economy and ecosystem, how to cope with environmental complexity, and what role science should play in environment affairs. Also offered as URPA 5365; credit will be granted only once.

### **CIRP5344 – HUMAN SERVICES PLANNING**

**3** Lecture Hours · **0** Lab Hours

Social welfare institutions: private and public; needs assessment, resource allocation, procedures, city/state/federal/private policy review; highlights of current system demands and changes. Also offered as URPA 5316.

### **CIRP5345 – PLANNING AND REAL ESTATE DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

The goals, strategies, methods, and achievements of major participants in the urban land and building markets are examined. Land owners, speculators, real estate brokers, developers, bankers, lawyers, non-profit builders, and government agencies are studied, as well as such business tools as: market and feasibility analysis, appraisal techniques, proforma analysis, and others.

### **CIRP5346 – QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours



The study of qualitative research and analysis methods. Offered as CIRP 5346 and URPA 5344; credit will be given only once.

### **CIRP5347 – URBAN PROBLEMS**

**3** Lecture Hours · **0** Lab Hours

Specific urban problems examined in depth, traced to their historical origins to see how they or similar problems have been dealt with in other times and places. Students will then propose possible solutions to the problems in their contemporary form. Offered as CIRP 5347 and URPA 5319.

### **CIRP5350 – ENVIRONMENTAL PLANNING**

**3** Lecture Hours · **0** Lab Hours

Overview of environmental planning issues and problems, including basic ecological principles; development and effects of the chemical industry; policies on international issues; environmental justice and ethics; environmental economics, including externalities and public goods; sustainable development; overviews of planning for air quality, water quality, solid waste, pollution prevention, habitat conservation, etc.; and plan implementation, including enforcement, regulation and funding.

### **CIRP5351 – TECHNIQUES OF ENVIRONMENTAL ASSESSMENT**

**3** Lecture Hours · **0** Lab Hours

Analysis of impact assessment documents from a variety of projects; study of federal laws and regulations governing the process; state impact assessment laws and regulations; and procedures used in other nations. Students will prepare an environmental assessment for a real-world project. Overviews of environmental site assessment, MIS documents, and environmental auditing will also be given.

### **CIRP5352 – ENVIRONMENT ASSESSMENT POLICY & PRACTICE**

**3** Lecture Hours · **0** Lab Hours

Review and analysis of the development of the environmental assessment process with focus on expectations of how environmental assessment will be transformed in the era of climate change. Students evaluate the effects of new laws and regulations and the accelerated growth of environmental policy development at all levels of government, especially among urban areas. The course includes review of selected environmental assessment documents and project case studies.

### **CIRP5353 – ENVIRONMENTAL LAW**

**3** Lecture Hours · **0** Lab Hours

This seminar examines the role of environmental law within the political-institutional framework of the American system. Emphasis is on the legal-judicial aspects of environmental regulation. Analyzes the decision of U.S. courts as these affect and interpret environmental laws and regulations for their legality and constitutionality.

### **CIRP5354 – HOUSING PLANNING, POLICY AND FINANCE**

**3** Lecture Hours · **0** Lab Hours

Evaluation of the effect of state, local, and federal housing policy on the urban arena. Topics will be selected from federal subsidy programs, tax subsidies, operations of financial intermediaries, and related areas.

### **CIRP5356 – INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Introduction to GIS and the application of computer graphics systems in the storage, processing, and retrieval of geographic urban and regional information; case examples and related projects and issues of system management.

### **CIRP5357 – INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS**

**3** Lecture Hours · **0** Lab Hours

Applications of GIS to typical urban and regional geographic information problems and projects.

### **CIRP5358 – INTELLIGENT TRANSPORTATION SYSTEMS (ITS) AND PLANNING**

**3** Lecture Hours · **0** Lab Hours

Concepts, components, deployments, and implementations of ITS; methods for ITS evaluations; linkage between ITS and traditional transportation planning; and issues related to ITS planning and deployment.

### **CIRP5360 – COMPUTER METHODS FOR TRANSPORTATION PLANNING**

**3** Lecture Hours · **0** Lab Hours

Applications of computer software (for example, TransCad, Tranplan) in transportation planning modeling. Theories of residential location choice and travel behavior. Topics may include land-use and travel demand models, trip distribution models, mode choice models, and network equilibrium.

### **CIRP5361 – PLANNING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Intended to enhance readiness for professional work through exposure to planning practice in a one semester log internship (300 hrs in the spring or fall semester or 275 hrs in the summer). Integrates work experience and coursework through journaling and reflective practice. Requirements: (1) student secures an internship from a planning related employer and approval from the student's major professor prior to enrolling in the course; (2) the intern must provide performance evaluation by the job supervisor and the intern's evaluation of the internship experience. Enrollment open to students with no previous formal planning experience. Credit not available for previous internship or planning experience. P/F grade.

### **CIRP5362 – URBAN DIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Examines the growing spatial and social diversity of cities; how physical as well as socioeconomic urban structures have fostered race, class, and gender inequalities; how urban policies have addressed and can address these issues. Offered as CIRP 5362 and URPA 5362.

### **CIRP5363 – LEADERSHIP AND COMMUNICATION SKILLS IN THE PLANNING PROCESS**

**3** Lecture Hours · **0** Lab Hours

Governance and participation, comprehensive planning and the community planning process, participatory planning, and practical communication skills for planners and administrators: leadership and public meetings, participative decision making, interpersonal communications and conflict management, effective writing and presentations.

### **CIRP5364 – ECONOMIC BASE AND INDUSTRIAL DEVELOPMENT POLICY**

**3** Lecture Hours · **0** Lab Hours

Theories and methods of local and regional economic base analyses; techniques for inventorying strengths, weaknesses, opportunities and threats of local capital, labor and land resources; alternative policy responses to industrial development issues arising from economic base analysis.

### **CIRP5380 – RESEARCH QUESTIONS IN PLANNING**

**3** Lecture Hours · **0** Lab Hours

Application of research issues, writing, and communication skills in planning. Designed to assist students in preparing their research for master's thesis or professional report.

### **CIRP5391 – CONFERENCE COURSE**

**3** Lecture Hours · **0** Lab Hours

Special subjects and issues as arranged by individual students and faculty members. May be repeated for credit.

### **CIRP5395 – SPECIAL TOPICS IN PLANNING**

3 Lecture Hours · 0 Lab Hours

Selected topics in City and Regional Planning. May be repeated for credit.

### **CIRP5397 – PROFESSIONAL REPORT**

3 Lecture Hours · 0 Lab Hours

Preparation of final professional report as a thesis substitute for MCRP degree. Required of all thesis substitute students not enrolled in CIRP 5193.

### **CIRP5398 – PLANNING THESIS**

3 Lecture Hours · 0 Lab Hours

Graded F/R.

### **CIRP5698 – PLANNING THESIS**

6 Lecture Hours · 0 Lab Hours

Graded F/R.

### **CIRP5998 – PLANNING THESIS**

9 Lecture Hours · 0 Lab Hours

Graded P/F/R.

### **CIRP6301 – THEORETICAL FOUNDATIONS AND PH.D. WORKSHOP**

3 Lecture Hours · 0 Lab Hours

Explores the development and function of theoretical models and frameworks. Examines the major theories from the social sciences designed for framing issues in urban planning, administration, and public policy. Designed to assist doctoral students in preparing their research for dissertation. Opportunities to present work in progress, share ideas, and interact with faculty. Prerequisite: CIRP 5317/URPA 5342, and CIRP 5346/URPA 5344. Offered as CIRP 6301 and URPA 6301; credit will be granted only once.

### **CIRP6305 – SEMINAR IN URBAN PLANNING PROCESSES**

3 Lecture Hours · 0 Lab Hours

Final course in urban planning field. Focus on the various political, economic, and social institutions and theoretical approaches in the planning process, and application of these multidisciplinary perspectives in the analysis of specific planning issues.

### **CIRP6346 – ADVANCED DATA ANALYSIS**

3 Lecture Hours · 0 Lab Hours

An introduction to selected advanced techniques related to planning analysis. Subjects include advanced applied regression analysis, multivariate logit analysis, and multinomial logistic regression. Applications of projection techniques, land use and transportation models, and methods of regional analysis. Offered as CIRP 6346 and URPA 6346. Credit will be given only once.

## **UPPP Courses**

### **UPPP6399 – DISSERTATION**

3 Lecture Hours · 0 Lab Hours

Graded R/F only.

### **UPPP6699 – DISSERTATION**

**6** Lecture Hours · **0** Lab Hours

Graded R/F/P/W only.

### **UPPP6999 – DISSERTATION**

**9** Lecture Hours · **0** Lab Hours

Graded P/F/R.

### **UPPP7399 – DOCTORAL DEGREE COMPLETION**

**3** Lecture Hours · **0** Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)

## File Not Found (404 Error)

The page you requested:

</about/catalog/current/schools/supa/interdisciplinary/>

does not exist on this web site.

Please refer to our [site map](#) below for help in finding the information you need.

### Graduate Studies – Home

#### ■ [About Us](#)

- [Welcome](#)
- [Academics & Research](#)
- [Cultural Diversity](#)
  - [McNair Scholars](#)
- [Grad Stories](#)
  - [Next Generation University](#)
  - [Cara Wallace](#)
  - [A. R. Nazmus Sakib](#)
  - [Tina Castillo](#)
- [Graduate Catalog](#)
- [Contact Us](#)
  - [UT Arlington in Social Media](#)

#### ■ [Prospective Students](#)

- [Apply](#)
  - [Before You Apply](#)
  - [How To Apply](#)
  - [After You Apply](#)
  - [Former Student Readmission](#)
  - [Tuition & Financial Assistance](#)
- [Programs](#)
  - [Graduate Degrees & Certificates](#)
    - [Gainful Employment Disclosure](#)
  - [Distance Education](#)
  - [Science & Math Teachers](#)
  - [Fort Worth Center](#)
- [Visit Campus](#)
  - [Walk-In Sessions](#)

- [Workshops](#)
- [GRE/GMAT Services](#)
- [Graduate Forums](#)
- [Plan A Visit](#)
- [We're Coming to You](#)
- **Students**
  - [Services & Resources](#)
    - [Academics & Advising](#)
    - [Writing](#)
    - [Teaching & Research](#)
    - [Responsible Conduct of Research](#)
    - [Graduation Information](#)
  - [New Graduate Student Orientation](#)
  - [Petition to the Graduate Faculty](#)
  - [Tuition & Expenses](#)
  - [Financing Your Education](#)
    - [Graduate Fellowships](#)
      - [UT Arlington Funded Fellowships](#)
      - [Externally Funded Fellowships](#)
    - [Sponsored Students](#)
    - [Need-Based Aid](#)
      - [Grants](#)
      - [Student Loans](#)
      - [Work Study Program](#)
      - [Tuition Assistance for Mexican Students](#)
  - [Forms](#)
    - [Master's Forms](#)
    - [Doctoral Forms](#)
    - [Thesis & Dissertation Forms](#)
- **Faculty & Staff**
  - [Graduate Advisors](#)
    - [Meeting Handouts & Information](#)
  - [Graduate Assembly](#)
    - [Meeting Minutes](#)
  - [Graduate Recruiting Advisory Board](#)
  - [Graduate Studies Committee](#)
  - [Forms](#)
  - [Policies & Procedures](#)
  - [Resources](#)
  - [Recruiting & Promotion](#)
- **Alumni & Friends**

- [DEGREES Newsletter](#)
- **Special Programs**
  - [Admissions Forms](#)
  - [ATGS](#)
  - [AUGMENTS](#)
  - [DS-PRO](#)
  - [EDGE](#)
  - [EGFI](#)
  - [Grad Fest](#)
  - [I Engage](#)
    - [IM Program](#)
  - [LSAMP](#)
  - [ON-TRAC](#)
  - [Request Information](#)
  - [TAGSS](#)
  - [Virtual Tour](#)
- **Resources**
  - [“Office” Resources](#)
  - [PDF Resources](#)
  - [Video Resources](#)
  - [ZIP Resources](#)
- **Online Tools (Secure Login Required)**

The University of Texas at Arlington [Graduate Admissions](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.3372](#) | Fax [817.272.1494](#)

[Blog](#) | [Facebook](#) | [Twitter](#)

© 2017 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
    - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Public Administration

School of Urban and Public Affairs

Web [www.uta.edu/supa/graduate/mpa/index.php](http://www.uta.edu/supa/graduate/mpa/index.php)  
Phone 817.272.2338  
Fax 817.272.5008

551 University Hall

---

### Degrees / Certificates

#### Master's Degrees

Accelerated Online Master of Public Administration  
Public Administration, M.P.A. On Campus.

#### Certificates

Law & Public Policy Certificate  
Public Budgeting and Financial Management Certificate  
Urban Non-Profit Management Certificate

---

### Graduate Faculty

#### Graduate Advisor

[Karolyn Field](#)

#### Program Director

[David Coursey](#)

#### Professor

[Richard Cole](#)

#### Associate Professor

[Rod Hissong](#)  
[Maria Martinez-Cosio](#)  
[Alejandro Rodriguez](#)

#### Assistant Professor

[Karabi Bezboruah](#)  
[Colleen Casey](#)  
[Darla Hamann](#)

---

### Graduate Advisors

#### [Karolyn Field](#)

*Public Administration, M.P.A. On Campus.*

#### [Anthony Valdez](#)

*Public Administration, M.P.A. On Campus.*



## Department Information

### Courses

# Department Information

#### General

- [Mission](#)
- [Goals and Objectives](#)
- [Factors considered for admission to the MPA program](#)
- [Types of Admission](#)
- [Scholarship/Fellowship Criteria](#)
- [SUPA Inadequate Academic Progress Point System](#)
- [On Campus Degree Requirements and Courses](#)
- [Online Degree Requirements and Courses](#)
- [Dual Degree Programs](#)

#### Certificate in Urban Nonprofit Management

#### Graduate Certificate in Public Budgeting and Financial Management

- [Core Courses \(Required\)](#)
- [Elective Courses](#)

#### Public and Urban Administration Ph.D. Program (PUAD)

- [Application Requirements and Deadlines](#)
- [Curriculum and Degree Requirements](#)

#### General

Public Administration is concerned with the formulation, analysis, negotiation, and implementation of democratically responsible collective action. With an interdisciplinary focus, this program gives special emphasis to the urban community and the special challenges of public managers who serve in urban areas. The curriculum is designed to develop leadership capacity, understanding of the political, social, and economic characteristics of today's urban environment and the ability to apply current theories of management and analysis to difficult management issues. The program is meant as preparation for those entering management careers in government for the first time or as career development for those already employed who are seeking upward mobility in public management.

The MPA degree at the School of Urban and Public Affairs is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA), and the curriculum conforms to NASPAA standards.

Those seeking admission to the MPA program can choose between two program options: 1) courses taught on campus primarily during the evening hours; and 2) courses taught online. Applicants who choose the on-campus option may plan their courses to include the requirements of certificate programs such as Urban Nonprofit Management or Public Budgeting and Financial Management. A description of the various certificate offerings can be found in the Urban and Public Affairs section of the catalogue.

A hallmark of the MPA program is its distinguished faculty that combines extensive academic and

field experience in public administration with a wide range of related backgrounds. Augmenting the permanent faculty are several adjunct professors with impressive credentials in the public management field such as Bob Hart, City Manager of Kennedale, Texas; Richard Greene, Regional Director of EPA and former Mayor of Arlington, Texas.

## Mission

The mission of the Master's of Public Administration program is to strengthen public decision making and the delivery of public services in a globalized and diverse society by educating students to lead and manage organizations at all levels of government and nonprofit institutions ethically, democratically, and effectively.

## Goals and Objectives

- Goal 1: To educate students in the areas of public policy, administrative practices, research methods, and those analytical skills necessary for successful professional careers in the public and nonprofit sectors.

Objective 1: Demonstrate knowledge, skills, and competencies taught in the degree's core and respective emphasis area courses including proficiency in:

1. researching, analyzing, and writing reports on topics related to public sector work
2. effective written and oral communication skills
3. critical thinking skills in analyzing and solving problems
4. teambuilding skills and effective teamwork in managing projects

- Goal 2: To provide opportunities for students to apply current theories of public administration, particularly decision making, helping them to master their work responsibilities as administrators and preparing them for exemplary leadership and management positions in an increasingly complex urban environment.

Objective 2: Demonstrate knowledge, skills, and competencies characteristic of public leaders including proficiency in:

1. understanding the economic, legal, social, and political context of public administration and the policymaking process
2. incorporating public values into decisions
3. incorporating an ethical commitment in carrying out the public trust
4. interacting productively with a diverse and changing workforce and citizenry

- Goal 3: To instruct students in the effective use of information technology resources and internet collaborative tools enabling them to apply those skills in order to strengthen their public service and public decision-making capabilities.

Objective 3: Demonstrate adequate skills in the use of social networking tools and other Internet-based technology to manage projects and organizational resources including proficiency in:

1. using the Internet to conduct information searches and using appropriate computer applications for data collection, presentation, and analysis
2. using Internet-based applications to facilitate course related discussion and project management

- Goal 4: To encourage and support research and scholarship by both faculty and students, as well as the presentation of that work at appropriate national and international conferences and in the publication of that research in refereed scholarly journals and prominent professional journals.

Objective 4: Demonstrate research skills and professional service engagement including proficiency in:

1. publishing scholarly and applied research relevant to public and nonprofit organizations
2. engaging in professional and community service leading to the advancement of

public values, the profession, and the socialization of the next generation of public leaders

## Factors considered for admission to the MPA program

Factors in admission decisions are the same for the on campus and online programs.

The MPA program takes a holistic approach to the application review process. Each applicant's file is reviewed individually with equal consideration given to the quantitative and qualitative aspects of the student's records. A complete application includes:

- Graduate Record Exam (GRE) score: Writing (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Undergraduate Grade Point Average (GPA): The undergraduate GPA based on the last 60 hours of course work as calculated by the Graduate School from the official transcript.
- Graduate Record Exam (GRE) scores: Verbal and Quantitative (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Letters of Recommendation attesting to the applicant's potential to do Master's-level work and complete the program. Letters for Master's programs should be from professors or supervisors at work.
- Essay by applicant approximately one double-spaced page in length (approximately 250 words). The Essay is considered both for its content and quality of writing. The Essay should address the following questions: 1. Why do you want to earn a Master's degree in the program for which you are applying? 2. What relevant background and experience do you bring to the program? The essay can also include other concerns you'd like to bring to the attention of the Graduate Advisor or Master's Admissions Committee.
- Non-native English speakers only: TOEFL or IELTS scores (Exceptions: An applicant holding either a Bachelor's or a Master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, or IELTS score for admission purposes.)

## Types of Admission

### 1. Unconditional Admission:

Applicants who meet all the following requirements will be considered for unconditional admission:

- a. Minimum Writing GRE score of 4.0
- b. Minimum Undergraduate GPA of 3.0
- c. A preferred minimum Verbal GRE score of 450 (Revised GRE Test: 150), and minimum Quantitative GRE of 450 (Revised GRE Test: 141), and a minimum combined Verbal and Quantitative score of 1,000 (Revised GRE Test Combined: 291)
- d. Outstanding letters of recommendation
- e. Strong, well-written personal essay
- f. Non-native English speakers only: TOEFL scores of at least 550 (paper-based), 213 (computer-based), or 79 (iBT) with sectional scores that meet or exceed 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or, IELTS score of at least 6.5.

### 2. Probationary Admission:

Applicants who do not meet all requirements for Unconditional admission will be considered for Probationary admission on the basis of the strength of all the listed admission factors. Test scores will not constitute the sole or primary basis for ending consideration of an applicant. Under Probationary admission, special course requirements or other conditions may be imposed by the SUPA Master's Admissions Committee. Applicants who meet all the standards for Unconditional admission except for deficiency in Writing GRE score will be considered for Probationary Admission conditional on

completing an approved Writing course in their first semester.

**3. Other types of admission decisions pertaining to Master's applicants:**

- a. **Deferred:** Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admissibility can be determined, may be deferred until records are complete.
- b. **Provisional:** Applicants who are unable to supply all required documentation prior to the admission deadline but who otherwise appear to meet admission requirements may be granted Provisional admission pending submission of complete and satisfactory credentials before the end of the semester in which they have registered in a Provisional status.
- c. **Denied:** Applicants who fail to meet more than one of the admission requirements and for whom the SUPA Master's Admission Committee finds there is insufficient basis to justify any other kind of admission will be Denied admission. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission

### Scholarship/Fellowship Criteria

- Graduate students with a GPA of 3.0 or better who are enrolled in six hours or more are eligible to apply for competitive scholarships and fellowships.
- Scholarships and fellowships for Master's and Doctoral students will be competitively awarded based on consideration of the all admission criteria assessed by their admitting programs.

### SUPA Inadequate Academic Progress Point System

A student may be subject to dismissal from the program if they accumulate 4 deficiency points during their Master's degree or their Ph.D. Students who complete a Master's degree at SUPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student's record by repeating a course or additional coursework.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

### On Campus Degree Requirements and Courses

The on campus program consists of 39 or 42 total hours, which includes 10 required core courses and 9 hours in a selected emphasis area (2 required emphasis area courses and 1 elective). URPA 5360 is a 3 credit hour internship course; however this can be waived with at least 1 year of professional experience working in the public sector. Details on internship waiver requests are available on the MPA program website.

Upon successfully being admitted into the MPA program, students will choose an emphasis area and degree plan. Most all classes are offered as one session per week on Monday through Thursday during evening times (6:00-8:50pm or 7-9:50pm).

#### I. Core Courses (30 hours)

- URPA 5302 Foundations of Urban Research and Analysis
- URPA 5309 Intergovernmental Relations
- URPA 5320 Public Organization Theory
- URPA 5326 Public Budgeting
- URPA 5329 Financial Management in the Public and Non-Profit Sectors
- URPA 5345 Evaluation Research
- URPA 5350 Public Administration
- URPA 5351 Public Human Resources
- URPA 5358 Ethics in the Public Service

## URPA 5399 Public Administration Capstone

### II. Emphasis Areas (9 hours)

Students select an emphasis area and take a total of three courses: two required courses plus one elective from the respective list or any other course with the approval of the MPA advisor.

#### Emphasis Area 1: International Administration and Development

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate comprehension of the multidisciplinary concepts and theories of comparative administration, urbanism and politics with emphasis on globalization, urban and regional development, public bureaucracy, traditional and economic elites, modernization, and analyze the role, policies and organization of regional and multinational organizations.
2. Prepare and present a major comparative, scholarly study on a prominent policy or topical issue.

#### Required courses:

CIRP 5307 Urbanization in the Developing World  
URPA 5327 Comparative Administration and Development

#### Elective courses (select one):

PAD 5361 Political Economy of Borders  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5391 Comparative Public Policy-Study Abroad  
URPA 5392 Urbanization and Development-Study Abroad  
URPA 6349 Decision Making and Public Policy Analysis

#### Emphasis Area 2: Public Budgeting and Financial Management

Objectives-upon completion of this emphasis track, students should be able to:

1. Review, recommend, and interpret operating and capital budget requests taking political, economic, and decision-making processes into account; and
2. Assist the budget officer and other higher-level public officials in performing comprehensive financial analyses and developing financial and budgetary recommendations.

#### Required courses:

URPA 5332 Public Capital Budgeting and Planning  
URPA 5348 Cost-Benefit Analysis

#### Elective courses (select one):

URPA 5312 Economic Policy  
URPA 5321 Urban Management  
URPA 5324 Urban Public Finance  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management  
URPA 5333 Governmental and Nonprofit Accounting  
URPA 6349 Decision Making and Public Policy Analysis (**NEW**)

#### Emphasis Area 3: Urban Management

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate proficiency in the use of applied analytic tools such as program evaluation,

policy analysis, cost-benefit analysis, and other management decision-making tools to aid the public manager make more informed decisions;

2. Assist public managers and other higher-level public officials to understand, analyze, and recommend appropriate solutions to complex public policy issues.

**Required courses:**

URPA 5321 Urban Management  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management

**Elective courses (select one):**

URPA 5304 Urban Politics  
URPA 5312 Economic Policy  
URPA 5323 Public Organizational Change  
URPA 5324 Urban Public Finance  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5348 Cost-Benefit Analysis  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5367 Strategic Public and Nonprofit Human Resources Management  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 6349 Decision Making and Public Policy Analysis

**Emphasis Area 4: Urban Nonprofit Agency Management**

Objectives-upon completion of this emphasis track, students should be able to:

1. Understand the different management areas and techniques within the nonprofit organization, including institutional management, leadership, fund-raising, financial administration, human resources coordination, and planning and performance measurements.
2. Understand the role of nonprofits as community institutions with an outward focus, including the political, economic, and inter-organizational environment, as well as marketing, legal, and government policy issues.

**Required courses:**

URPA 5354 Management of Nonprofit Organizations  
URPA 5355 Nonprofit Institutions

**Elective courses (select one):**

URPA 5313 Community Development  
URPA 5318 Social Welfare Policy  
URPA 5321 Urban Management  
URPA 5330 Community and Neighborhood Organization  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA (CIRP 5312) Strategic Planning and Performance Management  
URPA 5348 Cost-Benefit Analysis  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5367 Strategic Public and Nonprofit Human Resources Management  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 6349 Decision Making and Public Policy Analysis

**Emphasis Area 5: Strategic Human Resources Management**

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate an understanding of public human resource policies, programs, procedures, and legal issues relevant to the field; and



2. Demonstrate knowledge of techniques employed in designing performance appraisals, recruiting and selecting employees, and developing rewards systems.

**Required courses:**

URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5367 Strategic Public and Nonprofit Human Resources Management

**Elective courses: (select one)**

URPA 5321 Urban Management  
URPA 5323 Public Organizational Change  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 6349 Decision Making and Public Policy Analysis

**Emphasis Area 6: Economic Development and Planning**

Objectives-upon completion of this emphasis track, students should be able to:

1. Demonstrate a general comprehension of the politics, organization, policy issues and legal and financial dimensions of local economic development; and
2. Demonstrate knowledge of techniques employed in location and impact analysis, strategic planning, revenue generation, marketing, cluster development, site planning, and business recruitment, development and retention.

**Required courses:**

URPA 5334 Managing Economic Development  
URPA 5357 (CIRP 5312) Strategic Planning and Performance Management

**Elective courses (select one):**

URPA 5306 The Urban Economy  
URPA 5312 Economic Policy  
URPA 5321 Urban Management  
CIRP 5322 Economic Development Planning and Policy  
URPA 5341 Professional Report Writing  
URPA 5342 (CIRP 5317) Strategies for Urban Research  
URPA 5348 Cost-Benefit Analysis  
URPA 6349 Decision Making and Public Policy Analysis

**III. Internship (3 hours)**

URPA 5360 Urban Management/Planning Internship for students with less than one year of appropriate work experience.

**Online Degree Requirements and Courses**

The online program consists of 39 required core hours plus a 3 hour internship. Internships may be waived under the same conditions as the on campus program. Students may choose between URPA 5332 and 5352 but all other courses are required.

The program is designed for students to take two courses a term (Fall, Spring, Summer) in succession (one course in first half of term, another in second half of term) though it is possible to take additional courses. The curriculum is offered in a lockstep cohort format. Unlike the on campus program, there are no emphasis areas.

**I. Core Course (39 hours)**

URPA 5302 Foundations of Urban Research and Analysis

URPA 5309 Intergovernmental Relations  
URPA 5320 Public Organization Theory  
URPA 5326 Public Budgeting  
URPA 5329 Financial Management in the Public and Nonprofit Sectors  
URPA 5332 Public Capital Budgeting  
URPA 5345 Evaluation Research  
URPA 5350 Public Administration  
URPA 5351 Public Human Resources  
URPA 5352 Conflict Resolution in the Public and Nonprofit Sectors  
URPA 5355 Nonprofit Institutions  
URPA 5358 Ethics in the Public Service  
URPA 5368 Practical Employment Law for Public and Nonprofit Managers  
URPA 5399 Public Administration Capstone

## II. Internship (3 hours)

URPA 5360 Urban Management/Planning Internship for students with less than one year of appropriate work experience.

## Dual Degree Programs

Students in public administration may participate in one of five dual degree programs whereby they can earn a Master of Public Administration and 1) Master of Arts in Urban Affairs 2) a Master of City and Regional Planning, 3) a Master of Science in Social Work, 4) a Master of Science in Nursing, 5) a Master of Arts in Criminal Justice, or 6) a Master's of Sociology. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs. To participate in the dual degree program, students must make separate application to each program and must submit a separate Program of Work for each degree. Those interested in the dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement of Dual Degree Programs in the general information section of this catalog.

## Certificate in Urban Nonprofit Management

The Urban Nonprofit Management Certificate provides in-depth management training to nonprofit managers, staff, board members and volunteers to strengthen their management skills, administrative systems, and service delivery programs.

Students from any department or discipline may elect to complete the certificate program. Upon completion, students will be prepared to assume key roles in any nonprofit institution.

The certificate requires completion of URPA 5354 (Management of Nonprofit Organizations) and URPA 5355 (Nonprofit Institutions) as well as three additional courses to be selected by the student with approval of the Urban Nonprofit Management certificate program advisor. Examples of courses that would be approved include: URPA 5303 The Metroplex; URPA 5329 Financial Management in the Public and Nonprofit Sector; URPA 5351 Personnel and Human Resources in the Public Sector; URPA 5392 Entrepreneurial Management; CIRP 5319 Agencies of Planning and Administration or CIRP 5312 Strategic Planning and Management; CIRP 5324 Community Development or CIRP 5306 Urban Development; SOCW 5307 Introduction to Human Services Administration; SOCW 5303 Foundations of Social Policy and Services; MARK 5311 Marketing; MARK 5345 Creative Problem Solving.

Students who are already enrolled in a graduate degree program at U.T. Arlington need only declare their intent to enroll by submitting the appropriate application form to Dr. Edith Barrett, the Urban Nonprofit Management Certificate Advisor. No prerequisite requirements are essential for these students.

Students who desire only to enroll in the Urban Nonprofit Management Certificate program but



NOT in a graduate degree program may apply for admission to UT Arlington as a special student or "non-degree seeking" student. An undergraduate degree and grade point average of 3.0 shall be required. A GRE (graduate record examination) score and letters of recommendation are not necessary for admission to the Urban Nonprofit Management Certificate program. Any student that later seeks a graduate degree in a UT Arlington college or school may apply nine hours of coursework toward that degree within six years of completion and award of the Urban Nonprofit Management Certificate and by petition to the Graduate School through her or his prospective academic department. The acceptance or waiver of the remaining six hours taken as part of the requirements for the award of the Urban Nonprofit Management Certificate is at the discretion of each department.

Graduate students in any degree program at UT Arlington may register for Urban Nonprofit Management courses using standard registration procedures. It should be noted that class slots in the two core courses would be reserved for all of those Urban Nonprofit Management Certificate program participants who are accepted. Urban Nonprofit Management program students who are enrolled in other academic schools or colleges must obtain written course approval from their respective graduate advisors.

Professionals who desire to enroll in any or both of the core courses for continuing education hours may do so as special students. If at a later date these students decide to apply for the Urban Nonprofit Management Certificate program, the hours already taken as continuing education will be applied (within six years of completion of the courses) to the certificate program requirements.

## **Graduate Certificate in Public Budgeting and Financial Management**

Sound fiscal management at all levels of government is essential for meeting the demands of an increasingly expensive and complex service-delivery need. The purpose of this graduate certificate is provide students interested in public sector affairs and local government officials (budgeters, planners, finance analysts, and elected officials) with the skills to enable them to effectively support local government financial decision-making. Participants should expect to attain a comprehensive understanding of public budgeting and financial management practices and theories including knowledge of the various government revenue sources, major expenditures, and borrowing mechanisms used to finance long-life capital assets.

Students wishing to enroll only in the Graduate Certificate in Public Budgeting and Financial Management (certificate) but NOT to a graduate degree program may apply for admission to UT Arlington as a non-degree seeking student. A Bachelor's degree with a GPA of 2.8 in the last 60 hours of undergraduate coursework is required for admission through the Graduate School. Students with GPAs lower than 2.8 may be recommended for admission by Alejandro Rodriguez, Ph.D., the Certificate Advisor, based on the following admission enhancing factors: (1) the applicant's work experience and level of responsibility; (2) undergraduate degree in economics, financial management, accounting, or other closely related field; and (3) two letters of recommendation.

Students already enrolled in a Master's degree program at UT Arlington may enroll by submitting the appropriate application form to the program manager and his or her academic graduate advisor. Students who have completed a Master's degree may apply for admission to UT Arlington as a non-degree seeking student. In either case, a minimum GPA of 3.0 in Master's degree work is required.

Participants must satisfactorily complete three required core courses and two elective courses from an approved list of elective courses, or by permission of the program advisor. Students shall be awarded the Graduate Certificate for Public Budgeting and Financial Management by the School of Urban and Public Affairs and the Graduate School upon satisfactory completion of the certificate requirements and a grade point average of 3.0.

### **Core Courses (Required)**

URPA 5326 Public Budgeting \*  
URPA 5332 Public Capital Budgeting\*  
URPA 5329 Financial Management in the Public and Nonprofit Sectors

### Elective Courses

Students must take two of the following:

URPA 5302 Fundamentals of Urban Research and Analysis  
URPA 5345 Evaluation Research  
URPA 5310 Urban Policy and the Law  
URPA 5312 Economic Policy  
URPA 5324 Urban Public Finance  
URPA 5306 The Urban Economy  
URPA 5333 Governmental and Nonprofit Accounting

Students who later seek graduate degrees at UT Arlington may apply 12 hours of certificate coursework within six years of completion and award of the certificate, with approval of the appropriate Graduate Studies Committee and the Dean of the Graduate School. Non-degree seeking students in the certificate program desiring to seek a degree must meet all admission requirements of the degree program.

### Public and Urban Administration Ph.D. Program (PUAD)

The PUAD Ph.D. has eight required core courses, three required research courses, and a minimum of 9 dissertation credit hours. The eight core courses address the social sciences and public administration literatures critical to the integrative approach of the program. The methods courses include an intermediate quantitative methods course, and a qualitative methods course. Students also enroll in URPA 6301 to guide them in preparing their dissertation proposal. Students select their supervising committee during their first year to help guide them through their comprehensive exams and begin working on their dissertation proposal.

A student can expect to complete the required courses in no more than two academic years. Upon completing the core courses, students sit for their written comprehensive examination. The comprehensive examination is an integrative exam that blends public policy issues with public administration.

Students who completed a Masters in Public Administration degree may be eligible to waive some coursework and are encouraged to meet with the PUAD advisor to review their degree plan.

### Application Requirements and Deadlines

Along with the Graduate School application requirements, a complete application includes:

1. Official transcripts from colleges and universities attended. Students that obtained their masters degree at UT Arlington are not required to submit separate copies of transcripts as their information will be available to the SUPA advisors online. Information about submitting transcripts is available in the Graduate Catalog; and
2. Official test score reports for the Graduate Record Exam (GRE) and, for international applicants, the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about submitting official test scores is available from the Graduate Catalog. The ETS code for UTA is 6013; and
3. Three Letters of Recommendation. Letters should attest to the applicant's ability to do doctoral-level work and successfully complete the dissertation. Letters must be from references who hold a Ph.D. degree; and
4. An essay from the applicant that discusses the student's research agenda, identifies the faculty with whom the student will work, and states the reasons for pursuing a doctoral degree. The essay should be approximately 250 words. The essay is considered both for its content and writing quality.

Official transcripts and test scores must be sent directly to the Graduate School by the institution and ETS respectively. Letters of recommendation and personal essay should be sent directly to: PUAD Admissions Committee, SUPA Box 19588 , Arlington TX 76019 . It is the applicant's responsibility to ensure all application materials are received by February 1. Incomplete applications or applications received after the deadline will be deferred.

SUPA admits doctoral students for the Ph.D. in Urban and Public Administration for fall semester only. There are no spring and summer admissions for this degree.

Applicants that wish to be considered for graduate teaching assistant positions or other financial assistance, must submit their applications by their first week in January. Only complete applications (including GRE scores and letters) will be considered for financial assistance. Students must also complete a separate financial aid applications available on the SUPA website.

### **Admission Criteria**

Applicants may be admitted unconditionally with a graduate GPA of 3.6, a Verbal GRE score of at least 153 (500 if taken before August 1, 2011 and a Quantitative GRE score of at least 144 (500 if taken before August 1, 2011). International applicants are required to have a score of 213 or higher on the TOEFL (550 or higher on the written TOEFL; 79 or higher on TOEFL iBT). Strength of letters of recommendation and quality of personal statement and Master's degree field of study are also considered.

or

Applicants may be unconditionally admitted with a GPA above 3.7 if they earn scores of at least a 153 on the Verbal subtest (500 if taken before August 1, 2011) and 140 on the Quantitative subtest (400 if taken before August 1, 2011) or earn at least 144 (500 prior to August 1, 2011) on the Quantitative and 146 (400 prior to August 1, 2011) on the Verbal subtests.

Applicants not admitted unconditionally may be considered for admission on probation based on factors mentioned above as well as multilingual proficiency, first generation graduate student and applicant's community service experience. The doctoral admissions committee will set the probationary conditions.

The admissions committee may defer the admission decision when a component of the application is incomplete. It may also admit a student provisionally when an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

### **SUPA Inadequate Academic Progress Point System**

A student may be subject to dismissal from the program if they accumulate 4 deficiency points during their Master's degree or their Ph.D. Students who complete a Master's degree at SUPA will not carry deficiency points into their Ph.D. work. Deficiency points may not be removed from a student's record by repeating a course or additional coursework.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

If a Ph.D. student does not complete dissertation proposal within 2 years of passing comprehensive exam, they will accrue 2 deficiency points.

If a Ph.D. student does not complete all requirements for the Doctoral degree within five years after the student unconditionally passes the comprehensive examination, they will accrue 1 deficiency point per year beyond the five year mark.

### **Curriculum and Degree Requirements**

#### **Required Core Courses (24 hours):**

URPA 5304 Urban Politics or URPA 5309 Intergovernmental Relations  
URPA 5305 Theories of Urban Societies  
URPA 5306 The Urban Economy  
URPA 5311 Social Policy Formation  
URPA 6320 Advanced Organization Theory  
URPA 6315 Public Administration Theory  
URPA 6326 Public Budgeting and Finance  
URPA 6349 Decision Making and Policy

**Required Research Courses (9 hours):**

URPA 5342 Strategies in Urban Research/Intermediate Data Analysis  
CIRP 5346 Qualitative Research Methods.  
URPA 6301 Theoretical Foundations in Urban Affairs

**Comprehensive Exam and Dissertation**

Upon successful completion of the written comprehensive exam students form a three-member faculty committee and prepare their dissertation proposal. Given the research topic and preparedness of the student, the faculty committee may recommend that the student take additional courses that contribute to the student's dissertation. The student will defend a dissertation proposal before her/his committee.

Successful completion of the dissertation proposal advances the student to the status of candidacy (ABD). The student continues to work closely with her/his dissertation committee to the completion of the dissertation. SUPA holds graduation ceremonies in Fall and Spring and doctoral students can receive their hood at either event.

**Dissertation Proposal**

Upon successful completion of the written comprehensive examination, students will work in preparation of their dissertation proposal. This preparation may include independent study or structured courses and is guided by the student's Dissertation Committee. In the semester beginning the dissertation proposal, students are required to take URPA 6301 Theoretical Foundations and Ph.D. Workshop, which provides theoretical background and techniques to prepare the student for completing the dissertation proposal. Students must also work closely with their dissertation supervisor and committee to develop their dissertation proposal. A formal oral proposal defense must be held, and the proposal must be formally approved by the dissertation committee before the student may continue to complete the dissertation. Guidelines for the dissertation proposal are available in the Ph.D. Student Handbook.

**Dissertation**

The dissertation represents the culmination of the student's academic efforts and so is expected to demonstrate original and independent research activity and be a significant contribution to knowledge.

Upon the successful defense of their dissertation proposal, the student is required to submit an application to the UT Arlington's Institutional Review Board if their research involves human subjects. Detailed information on the application process is available at: [UTA's Human Subjects Research](#)

Doctoral students must enroll in a minimum of 3 dissertation hours (PUAD 6399) every long semester (Fall & Spring). The student must accumulate a minimum of nine dissertation hours to graduate. Once the student's committee has reviewed the completed dissertation and agree that the student is ready to defend, the student enrolls in PUAD 7399 in the term designated as their completion term. Students may designate only one term as the completion term. Doctoral students who do not graduate at the end of their completion term will receive a grade of R, W or F and must enroll in a minimum of 6 hours of dissertation research (6699 or 6999) every term until graduation.

The Graduate School offers Dissertation Seminars each semester and encourages all Dissertation students to attend.

The dissertation defense is a public oral examination open to all members (faculty, students and invited guests) of the University community. Questioning of the candidate will be directed by the student's dissertation committee. All members of the student's committee must be present at the defense. Although the defense is concerned primarily with the dissertation research and its interpretation, the examining committee may explore the student's knowledge of areas relevant to the core of the dissertation problem.

The dissertation defense may result in a decision that the candidate has 1) passed unconditionally; 2) passed conditionally with remedial work specified by the committee; 3) failed, with permission to be re-examined after a specified period; or 4) failed and dismissed from the program. The dissertation must be approved unanimously by the student's dissertation supervising committee and by the Dean of Graduate Studies.

## URPA Courses

### URPA5300 – FOUNDATION OF URBAN THEORY

3 Lecture Hours · 0 Lab Hours

Social theories that explain the life cycle of urban communities as they develop, expand, and are sustained or decay are presented and contrasted. Special consideration is given to role of social policy. Topics such as poverty, race, neighborhoods, and environment are addressed.

### URPA5301 – FOUNDATIONS OF URBAN POLITICS AND ECONOMICS

3 Lecture Hours · 0 Lab Hours

Examines the major political and economic institutions and processes in urban communities and their effect on urban policy.

### URPA5302 – FOUNDATIONS OF URBAN RESEARCH AND ANALYSIS

3 Lecture Hours · 0 Lab Hours

An introduction to research methodologies, both quantitative and qualitative, and statistical techniques useful in the analysis of urban trends and administrative programs. Previously taught as SUPA 5302.

### URPA5303 – THE METROPLEX: SURVEY OF URBAN AFFAIRS, PLANNING, ADMINISTRATION:

3 Lecture Hours · 0 Lab Hours

The Metroplex provides an ideal laboratory for study with more than 100 cities and other governmental units, thousands of neighborhoods and business enterprises, major concentration of minorities and dozens of ethnic groups. An in-depth orientation on urban dynamics utilizing senior faculty members, governmental and community leaders, and current research reports and studies.

### URPA5304 – URBAN POLITICS

3 Lecture Hours · 0 Lab Hours

Examination of the city as a political system, including the impact of urbanization and fragmentation on policies; input dimensions, including voting patterns and interest group development; decision-making structures, especially types of community power structures and the impact of the reform movement on structural processes. Also offered as POLS 5305; credit will be granted only once.

### URPA5305 – THEORIES OF URBAN SOCIETY

3 Lecture Hours · 0 Lab Hours

Several theoretical perspectives of the community and community organization examined. Special emphasis given to theories from human ecology, organization and stratification, and social welfare.

### **URPA5306 – THE URBAN ECONOMY**

**3** Lecture Hours · **0** Lab Hours

Internal dynamics of the growth and development of the urban system and its relation to the national economy. National and urban economic policy, urban growth and land use, market imperfections, urban financial issues, and the environmental implications of urban growth studied through lecture, game simulation and policy debates.

### **URPA5307 – URBAN GEOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

Emphasizes real aspects associated with urban physical environments and social, behavioral and financial processes that shape these environments.

### **URPA5308 – URBAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

Extensive reading primarily in the history of the urbanization and metropolitanization of the people of the United States. Historical methods as exemplified in the works of leading historians and analyzed; examples of the scholarship of selected historians and treatises on selected cities, regions, and urban institutions studied.

### **URPA5309 – INTERGOVERNMENTAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of the implications of federalism, and the changing nature of intergovernmental relations on state and local management, administration, planning, and policy making.

### **URPA5310 – URBAN POLICY AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of federal government and selected state and local government policies and programs designed to influence the course of change and the future development of cities and urban areas. The role of "private" governments in affecting policy explored.

### **URPA5311 – SOCIAL POLICY FORMATION**

**3** Lecture Hours · **0** Lab Hours

Utilization of a sociological approach in the study of policy formation in such areas as aging, social planning, and community problem solving.

### **URPA5312 – ECONOMIC POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines structure of the U.S. economic system and its impact on welfare of consumers, workers, and industry; public policy efforts to provide for management of critical economic variables are evaluated for effectiveness and equity as they impact different interest groups.

### **URPA5313 – COMMUNITY DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on current problems of community development and neighborhood revitalization. Housing, community assets, the roles of community development corporations and social capital in cities, and community economic development will be analyzed. Federal, state, and local policies, with grassroots initiatives evaluated for effectiveness on promoting alternatives for community building and organizing. Also offered as CIRP 5324; credit will be granted only once.

### **URPA5314 – HEALTH POLICY**

**3** Lecture Hours · **0** Lab Hours

Current health policy and programs, examination of historical development, economic and legal aspects,



interest groups and health constituencies.

### **URPA5315 – URBAN EDUCATION POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines current education policy and programs, including public school districts, charter schools, and vouchers; economic and political aspects; role of adult education programs in improving human capital.

### **URPA5316 – HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Social welfare institutions: private and public; needs assessment, resource allocation, procedures, city/state/federal/private policy review; highlights of current system demands and changes. Offered as URPA 5316 and CIRP 5344; credit will be granted only once.

### **URPA5317 – ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the physical environmental dimensions of urbanization including such factors as pollution, waste disposal, and land use; stresses the role of economic, social, and political institutions as these affect environmental quality of the city. Offered as CIRP 5342 and URPA 5317; credit will be granted only once.

### **URPA5318 – SOCIAL WELFARE POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines recent welfare reform measures (federal, state, and local levels), the political issues behind them, and their influence on urban life. A central topic will be the impact of a changing society on social welfare policy needs, including analyses of labor force participation and family structure.

### **URPA5319 – URBAN PROBLEMS**

**3** Lecture Hours · **0** Lab Hours

Specific urban problems examined in depth, traced to their historical origins to see how they or similar problems have been dealt with in other times and places. Students will then propose possible solutions to the problems in their contemporary form. Offered as CIRP 5347 and URPA 5319.

### **URPA5320 – PUBLIC ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Historical evolution of administrative theory including classical, sociological and social-psychological dimensions; decision-making theory; implications of public interest theory for public management; basic concepts of organization development and impact on public administration paradigms; new public administration; and future of public urban organization. Also offered as CRCJ 5309 and POLS 5303; credit will be granted only once.

### **URPA5321 – URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses through lectures, readings, and exercises on major administrative process: personnel and policy development and analysis; management styles and key contemporary management problems explored through presentations by prominent local practitioners.

### **URPA5322 – POLITICS, POLICY AND PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Development of theory of bureaucracy; bureaucracy as social issue; ethics and morality in public bureaucracy; mobilization of special interest support; power differentials in urban agencies; policy process in bureaucracy; new bureaucratic structures and processes for urban policy making.

### **URPA5323 – PUBLIC ORGANIZATIONAL CHANGE**

**3 Lecture Hours · 0 Lab Hours**

Current theories and concepts of public organizational change with particular emphasis on organization development and action research; theoretical roots of contemporary change literature traced through readings and discussion of classical organization theory, public administration including New Public Administration decision making, public interest, phenomenology, learning theory and general systems. Prerequisite: basic organizational theory course or permission of instructor.

### **URPA5324 – URBAN PUBLIC FINANCE**

**3 Lecture Hours · 0 Lab Hours**

Tax, revenue, and fiscal problems of cities and local governments in metropolitan areas; problems of matching costs and benefits in providing public services among different local governments; increasingly complex dimensions of intergovernmental fiscal relations and public budgeting systems. Offered as URPA 5324 and CIRP 5329; credit will be granted only once

### **URPA5325 – ADMINISTRATIVE LAW**

**3 Lecture Hours · 0 Lab Hours**

Examines scope and role of administrative regulation of and by governmental agencies; explores constitutional principles which limit administrative power and administrative law which governs classical areas of conflict between administrative agencies and their constituencies; rule-making, judicial review and informal regulatory processes of importance to public officials.

### **URPA5326 – PUBLIC BUDGETING**

**3 Lecture Hours · 0 Lab Hours**

This course introduces students to the principles and practices used by federal, state, and local governments to acquire and spend revenues within the context of American democracy, capitalism, federalism, and economics. The primary objective of this course is to provide students with the practical skills and theoretical knowledge to enable them to be effective participants in the budgeting process and critical consumers and producers of research relevant to public budgeting. Offered as CIRP 5328 and URPA 5326. Credit will be granted only once.

### **URPA5327 – COMPARATIVE ADMINISTRATION AND POLICY**

**3 Lecture Hours · 0 Lab Hours**

Extensive, multidisciplinary exposure to concepts and models of administration in developed and modernizing countries; role of the military, bureaucracy and traditional elites in development; practices and concepts of strategies for effective change.

### **URPA5328 – SMALL CITY MANAGEMENT**

**3 Lecture Hours · 0 Lab Hours**

This course will focus on problems peculiar to small cities, including administrative law; personnel, planning; public works, public safety; human services; budget and finance; public relations and parks and recreation.

### **URPA5329 – FINANCIAL MANAGEMENT IN THE PUBLIC AND NON-PROFIT SECTORS**

**3 Lecture Hours · 0 Lab Hours**

Overview of the principles of finance as they apply to the public and non-profit sectors, financial reporting for state and local governments and non-profit organizations and evaluation.

### **URPA5330 – COMMUNITY AND NEIGHBORHOOD ORGANIZATION**

**3 Lecture Hours · 0 Lab Hours**

Structure and processes in the analysis and development of community and neighborhood organizations; special emphasis given to poverty and minority communities and neighborhoods.



### **URPA5331 – LAND USE PLANNING AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Explores the law of land use in the context of the American legal, economic, and political systems. Examines leading court decisions and precedents for their background, content, and applicability to contemporary land use. Offered as CIRP 5316 and URPA 5331. Credit will be granted only once.

### **URPA5332 – PUBLIC CAPITAL BUDGETING**

**3** Lecture Hours · **0** Lab Hours

Examines governmental capital budgeting processes with a focus on understanding the significance of capital improvement planning, public facility investment, and project evaluation to sound infrastructure financing and regional economic growth. Governments purchase or construct long-lasting physical assets or facilities financed mostly through borrowing. This course aims to understand the rationale for public capital budgeting and debt instruments used to finance capital investment in the political context of public budgeting in America.

### **URPA5333 – GOVERNMENTAL AND NONPROFIT ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

This course is designed as an introduction to governmental and nonprofit accounting. The course reviews major fund accounting principles, accounting for budgetary, revenue, and expenditure funds, accounting for general capital assets and long-term liabilities, accounting for fiduciary and proprietary funds, auditing practices, and financial reporting unique to government and non-profit organizations.

### **URPA5334 – MANAGEMENT OF ECONOMIC DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on the knowledge, organization, politics, issues, techniques and processes of local economic development. Emphasis is placed on contemporary issues and trends in the rich, dynamic laboratory of local economic development in Texas. Learning objectives include: 1) comprehension of basic techniques and issues such as strategic planning, leadership strategies, financial options and evaluation; 2) increased knowledge of the positive potential of thoughtful economic development for local environmental, infrastructure, and revenue challenges; and 3) enhanced professional development through individual and classroom exposure to successful practitioners.

### **URPA5341 – PROFESSIONAL REPORT WRITING**

**3** Lecture Hours · **0** Lab Hours

Provides students entering public sector employment with writing, management information, data retrieval skills to communicate ideas and information within and outside an agency; basic writing skills reviewed, including organization of reports and grammatical construction; assignments based on actual internship position of students in public agencies.

### **URPA5342 – INTERMEDIATE DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An intermediate level examination of statistical and research techniques appropriate to urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, ANOVA, logit and probit models, and techniques for data reduction (e.g., factor analysis). Prerequisite: URPA 5302. Offered as URPA 5342 and CIRP 5317; credit will be granted only once.

### **URPA5343 – APPLIED URBAN ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Group and individual projects to develop research studies or strategies, data reports for local government, agency or citizen group; techniques appropriate to task utilized. P/F only.

### **URPA5344 – QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours

The study of qualitative research and analysis methods. Offered as CIRP 5346 and URPA 5344; credit will

be given only once.

### **URPA5345 – EVALUATION RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Methodological issues in evaluating public programs; identification of variables, indicators and analyses formats presented. Prerequisite: SUPA 5302 or URPA 5302.

### **URPA5346 – DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

### **URPA5347 – DEMOGRAPHIC METHODS**

**3** Lecture Hours · **0** Lab Hours

Examination of sources of data-census, vital statistics, special surveys, reports, special studies; techniques of analysis with particular emphasis on growth and projection models, interpretation of findings as a major policy area in urban analysis.

### **URPA5348 – COST BENEFIT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Reviews theory of cost-benefit and cost-effective analyses; explores the research, measurement and methodological requirements for the assessments of costs and benefits. It is recommended that students have completed at least one graduate course in research and one graduate class in public finance.

### **URPA5350 – INTRODUCTION TO PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate level introductory course designed to give students an understanding of public administration as a field of academic inquiry and professional practice within the context of American federalism, democratic values, institutional dynamics, and bureaucratic politics. In addition to contextually defining public administration, the course addresses government reform, intergovernmental relations, public ethics, organizational dynamics and behavior, personnel issues, budgeting, and e-governance.

### **URPA5351 – PUBLIC HUMAN RESOURCES**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to familiarize students with key functions of government personnel systems, discuss various theoretical approaches and techniques, and understand the major legal requirements of public personnel management. The course examines the structure, role, and evolution of the Civil Service, current personnel policies, and personnel management tasks such as examination, recruitment, position classification, and collective bargaining.

### **URPA5352 – CONFLICT RESOLUTION IN THE PUBLIC AND NONPROFIT SECTORS**

**3** Lecture Hours · **0** Lab Hours

Labor management at all levels of government, ability to work together to solve problems. Emphasis on collective and interest based bargaining, mediation, labor management partnership. Simulation exercises teach dynamics of bargaining, negotiation, problem solving, and small group dynamics.

### **URPA5353 – URBAN GOVERNMENT REFORM AND INNOVATION**

**3** Lecture Hours · **0** Lab Hours

Designed to acquaint students with urban governance reform and innovation. Course will explore how reformed government differs from traditional bureaucracy by contrasting it with entrepreneurial government and other innovations. Examines some of the areas most in need of reform, including service delivery, organizational capacity, and fiscal decentralization.

## **URPA5354 – MANAGEMENT OF NON-PROFIT ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines the different management areas and techniques within the nonprofit organization such as institutional management, leadership and management and the differences between them, fund-raising and financial administration, human resources-staff, volunteer, and board-coordination, internal needs assessment, planning, performance measurements, and the organizational environment and culture.

## **URPA5355 – NON-PROFIT INSTITUTIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines non-profits as community institutions with an outward focus: the political, economic, and inter-organizational environment, fund-raising and financial management, community relations and needs assessment, the role of the volunteers, boards and community leaders, marketing, and legal and government issues.

## **URPA5356 – PUBLIC ENTREPRENEURIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Public entrepreneurship involves the use of public powers, and partnerships with individuals, firms and other organizations, to achieve public purposes. The focus will be on creative management techniques and methods employed in managing the public sector.

## **URPA5357 – STRATEGIC PLANNING, POLICY AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Readings and case studies of strategic planning and management in the public and non-profit sectors; application of principles to an actual situation, involving stakeholder identification, environmental scanning, and formulation of mission statements, goals, and strategies. Offered as CIRP 5312 and URPA 5357. Credit will be granted only once.

## **URPA5358 – ETHICS IN THE PUBLIC SERVICE**

**3** Lecture Hours · **0** Lab Hours

This course examines public service theoretical ethics literature to provide a basis for each student to both reflect upon and expand their comprehension of the values and processes of ethical decision making. Beyond theoretical works, it addresses the application and evaluation of theory against the professional, workaday reality of case studies, ethical codes and other relevant materials. Three major learning objectives are: 1) achievement of a solid understanding of the dominant theoretical perspectives in the public service ethics literature; 2) competency in the development of guidelines and procedures that encourage ethical behavior, and 3) enhancement of the reach and resiliency of each member's personal commitment to public service ethics.

## **URPA5359 – ORGANIZATIONAL DIAGNOSIS**

**3** Lecture Hours · **0** Lab Hours

This class deals with tools and techniques necessary to manage public organizations. The learning objectives include ability to conduct an organizational diagnostic; and familiarity with group procedures and facilitation techniques involved in organizational change.

## **URPA5360 – URBAN MANAGEMENT/PLANNING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Designed to integrate work experience and coursework through a series of brief work-related assignments; presentations by local planning and management practitioners and class discussions and exercises. Enrollment is open to both pre-entry and in-career students. Formal internship placements with agency mentors will be arranged. P/F only.

## **URPA5361 – INTERNATIONAL ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

The course focuses on the rise of governmental and nongovernmental organizations in geopolitics, international development, and environmental management. It analyzes their institutional histories, their

organizational structures and cultures, and their role as institutional policy actors in the global diffusion of policy initiatives and managerial knowledge and practices.

### **URPA5362 – URBAN DIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Examines the growing spatial and social diversity of cities; how physical as well as socioeconomic urban structures have fostered race, class, and gender inequalities; how urban policies have addressed and can address these issues. Offered as CIRP 5362 and URPA 5362.

### **URPA5363 – CIVIL RIGHTS AND URBAN MINORITIES**

**3** Lecture Hours · **0** Lab Hours

Examines the changes in and growth of the civil rights of minorities in the United States from the close of the Civil War to the present. This is accomplished through the study of court decisions, legislation, and the civil rights movement in the 1950s and 1960s, as seen through the eyes of contemporary writers, including William Faulkner, Alice Walker, and Alex Haley.

### **URPA5364 – INSTITUTIONAL AND OTHER RADICAL ECONOMIC THEORIES**

**3** Lecture Hours · **0** Lab Hours

Examines the theoretical bases of institutional and other radical paradigms of the economic process and the alternative economic policies that logically flow from them. These are compared to and contrasted with the orthodox, or neo-classical, theoretical model of economics, and the economic policies that logically are derived from it. Emphasis will be on how and why the neo-classical model remains the dominant model for economic policy in Western, capitalist countries.

### **URPA5365 – FOUNDATIONS OF ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Explores how environmental controversy is rooted in conflict between a number of schools of environmental policy thought with divergent perspectives on issues such as how to define progress, how to balance the needs of economy and ecosystem, how to cope with environmental complexity, and what role science should play in environmental affairs. Also offered as CIRP 5343; credit will be granted only once.

### **URPA5366 – US IMMIGRATION POLICIES AND PLANNING FOR IMMIGRANTS**

**3** Lecture Hours · **0** Lab Hours

A seminar course where weekly readings would include: perspectives on international migration theory; the evolution of US immigration policy and national security; theories and urban issues related to immigrant assimilation and incorporation; urban ethnic economies and ethnic enclaves; segregation and housing of immigrants; globalization and immigrant labor networks; governance issues with providing education and other public services to immigrants and their children; and social work issues regarding generational conflict in immigrant families.

### **URPA5367 – STRATEGIC PUBLIC AND NONPROFIT HUMAN RESOURCES MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course is designed to acquaint students with the theory and practice of strategically developing, utilizing, and aligning human resources so that maximum contribution from each member of an organization is used toward the attainment of strategic long-range goals and objectives. Topics include HR strategy, diversity, leadership, selection, training and development, compensation, classification, performance appraisal, and future practices for public and non-profit organizations.

### **URPA5368 – PRACTICAL EMPLOYMENT FOR PUBLIC AND NONPROFIT MANAGERS**

**3** Lecture Hours · **0** Lab Hours

The course examines the rights and obligations of employers and employees. It does this by examining the legal background pertinent to public and nonprofit management. Topics addressed include employee selection, promotion and discipline, anti-discrimination legislation, gender and family issues legislation,

environmental, safety and health issues, whistleblower legislation, immigration law, workerAs compensation, labor law, and drug and alcohol issues.

### **URPA5390 – TOPICS IN URBAN THEORY**

**3** Lecture Hours · **0** Lab Hours

Different topics explored on an intensive basis, especially recent theoretical approaches. May be repeated for credit as topic changes.

### **URPA5391 – TOPICS IN URBAN POLICY**

**3** Lecture Hours · **0** Lab Hours

Different topics and approaches in analysis of urban problems. May be repeated for credit as topic changes.

### **URPA5392 – TOPICS IN URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Selected topics on current management problems including small city management, community-neighborhood relations, citizen involvement programs and techniques, personal and professional effectiveness as a total person, intergovernmental strategies and styles, public-private sector collaboration and co-planning, privatization, and other alternatives to economic service delivery. May be repeated as topic changes.

### **URPA5394 – SPECIAL TOPICS IN URBAN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Different topics each semester concentrate on a variety of methodological techniques and research strategies, such as demographic research and survey techniques. May be repeated for credit as topic changes.

### **URPA5395 – CONFERENCE COURSE IN URBAN AFFAIRS**

**3** Lecture Hours · **0** Lab Hours

Reading and research in a specialized area of urban affairs under the direction of a member of the graduate faculty.

### **URPA5396 – PROJECT REPORT**

**3** Lecture Hours · **0** Lab Hours

Student prepares report focusing on specific policy or professional issue, utilizing appropriate research techniques; subject area and design of project report with consent of instructor. Graded P/F/R only.

### **URPA5397 – RESEARCH REPORT**

**3** Lecture Hours · **0** Lab Hours

Student prepares report comparable to a journal article focusing on research issue, utilizing appropriate theory and research techniques; subject area and design of research report with consent of instructor. Graded P/F/R only. Prerequisite: URPA 5342.

### **URPA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded F, R.

### **URPA5399 – PUBLIC ADMINISTRATION CAPSTONE**

**3** Lecture Hours · **0** Lab Hours

This integrative applied research course assesses the student's ability to analyze, synthesize, and

formulate cogent recommendations to solve a real public sector problem. Students will write the capstone paper using concepts drawn from the MPA core curriculum, their chosen emphasis track, and the student's professional public work experience. Students are required to successfully defend their capstone paper before a Public Administration Forum consisting of SUPA faculty, students, and other interested parties. Prerequisite: completion of all other course work required for the MPA degree, including core courses and emphasis area courses, unless an exception is approved by the MPA advisor.

### **URPA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded P/F/R.

### **URPA6301 – THEORETICAL FOUNDATIONS AND PH.D. WORKSHOP**

**3** Lecture Hours · **0** Lab Hours

Explores the development and function of theoretical models and frameworks. Examines the major theories from the social sciences designed for framing urban planning or administration issues and public policy. Designed to assist doctoral students in preparing their dissertation research. Opportunities to present work in progress, share ideas, and interact with faculty. Prerequisite: CIRP 5346 and either CIRP 5317 or URPA 5342.

### **URPA6305 – SEMINAR IN URBAN POLICY PROCESSES**

**3** Lecture Hours · **0** Lab Hours

Final course in urban policy field; focus on the political, economic, and sociological institutions in the policy process, including various theoretical approaches, and application of these multidisciplinary perspectives in the analysis of specific policy issues.

### **URPA6306 – SEMINAR IN PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Final course in the public administration field, focuses on review and integration of the theories and principles of public administration.

### **URPA6310 – MONETARY AND FISCAL POLICY: THE FEDERAL ROLE**

**3** Lecture Hours · **0** Lab Hours

Examination of the role of the federal government in maintaining economic stability, ensuring full employment and controlling inflation; exploration of liberal interventionist, conservative and radical theories of state economic management to assess the various policy alternatives and the importance of interest groups.

### **URPA6315 – PUBLIC ADMINISTRATION THEORY**

**3** Lecture Hours · **0** Lab Hours

This course is designed to critically examine public administration theory through the lenses of various governance models that have been proposed beginning with Weber's "ideal"; bureaucratic model through Osborne and Gaebler's market model to Fox and Miller's postmodern discourse model. The course begins by examining each governance model's stated or implied assumptions (about man, government, state, etc.) Second, the course considers the political philosophy and conceptual pillars on which the models are theoretically founded. Finally, the course examines the ideas of what constitutes a state as it might be relevant to a particular model and public administration.

### **URPA6320 – ADVANCED ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

The purpose of this advanced seminar is to examine the role of public agencies as organs of the State. It focuses on federal, urban, and nonprofit organizations. Learning objectives include understanding of interpretive, critical, and postmodern critiques of State's institutions; and application of power, knowledge, and gender lenses to the analysis of organizational practices, culture, and policy actions. Prerequisite: URPA 5320 or URPA 5323.

## **URPA6326 – PUBLIC BUDGETING & FINANCE**

**3** Lecture Hours · **0** Lab Hours

The primary objective of this seminar is to provide students with the theoretical underpinnings of budgeting and financial management in the public sector. Students will engage in in-depth discussions of public budgeting and financial management topics drawn from economics, decision-making models, urban politics, federalism, and others to be able to have a sound understanding of how fiscal decisions affect public administration and policy.

## **URPA6340 – RESEARCH DESIGN**

**3** Lecture Hours · **0** Lab Hours

Advanced course especially for Ph.D. students; covers logic of research design and problems of structure. Emphasis on empirical and quantitative studies.

## **URPA6346 – ADVANCED DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An introduction to selected advanced techniques related to planning analysis. Subjects include advanced applied regression analysis, multivariate logit analysis, and multinomial logistic regression. Applications of projection techniques, land use and transportation models, and methods of regional analysis. Offered as CIRP 6346 and URPA 6346. Credit will be given only once.

## **URPA6349 – DECISION MAKING AND PUBLIC POLICY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

This course explores the theoretical, practical, and topical connections between public policy and public administration through a decision-making lens. The objectives of the course are to enable students to identify, critique, and connect the theoretical and meta-theoretical assumptions of decision-making models to models of public policy analysis and public administration. Course objectives will be pursued through readings, seminar discussions, and research-based assignments that focus on the intersection between decision-making, public policy, and public administration.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
  - School of Architecture
  - College of Business
  - College of Education and Health Professions
  - College of Engineering
  - College of Liberal Arts
  - College of Nursing
  - College of Science
  - School of Social Work
  - School of Urban and Public Affairs
    - Public Administration
    - Urban and Public Affairs
    - City and Regional Planning
- Admissions Requirements & Procedures
- General Information & Regulations
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Urban and Public Affairs

School of Urban and Public Affairs

Web [www.uta.edu/supa/graduate/maua.php](http://www.uta.edu/supa/graduate/maua.php)

Phone 817.272.2338

Fax 817.272.5008

551 University Hall

---

### Degrees / Certificates

#### Master's Degrees

Urban Affairs, M.A.

#### Doctoral Degrees

Public & Urban Administration, Ph.D.

Urban Planning & Public Policy, Ph.D.

---

### Graduate Faculty

[Mahyar Arefi](#)  
[Shima Hamidi](#)

#### Graduate Advisor

[Karolyn Field](#)

#### Program Director

[David Coursey](#)

#### Professor

[Ardeshir Anjomani](#)  
[Richard Cole](#)

#### Associate Professor

[Enid Arvidson](#)  
[Rod Hissong](#)  
[Maria Martinez-Cosio](#)  
[Alejandro Rodriguez](#)

#### Assistant Professor

[Colleen Casey](#)  
[Darla Hamann](#)

---

### Graduate Advisors

[Ardeshir Anjomani](#)  
*Urban Planning & Public Policy, Ph.D.*

[David Coursey](#)



*Public & Urban Administration, Ph.D.*

**Karolyn Field**

*Public & Urban Administration, Ph.D.*

*Urban Affairs, M.A.*

*Urban Planning & Public Policy, Ph.D.*

**Anthony Valdez**

*Public & Urban Administration, Ph.D.*

*Urban Affairs, M.A.*

*Urban Planning & Public Policy, Ph.D.*

---

## Department Information

### Courses

# Department Information

### Master of Arts in Urban Affairs

- **General**
- ***Proposed Admissions Changes Effective August 2014 >>***
- **Factors Considered for Admission**
- **Types of Admission**
- **Scholarship/Fellowship Criteria**
- **SUPA Inadequate Academic Progress Point System**
- **Degree Requirements and Courses**
- **Areas of Concentration**

### Dual Degree Program

## Master of Arts in Urban Affairs

### General

The Master of Arts in Urban Affairs (MAUA) prepares students for policy and/or management positions in local government, regional government, nonprofit and private sector consulting and for other professional positions in economic development, social planning, community organizing, and urban journalism.

The program is organized around public policy issues with emphasis on the problems and questions related to life in urban communities. Because urban issues are complex and require the understanding and skills of many disciplines, the program is interdisciplinary in character, curriculum content, teaching staff, and enrollment. The degree is built around an urban core with students choosing a policy or non-profit-oriented concentration.

### Factors Considered for Admission

The MAUA program takes a holistic approach to the application review process. Each applicant file is reviewed individually with equal consideration given to the quantitative and qualitative aspects of the student's record. A complete application includes:

- Graduate Record Exam (GRE) score: Writing (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Undergraduate Grade Point Average (GPA): The undergraduate GPA based on the last

60 hours of course work as calculated by the Graduate School from the official transcript.

- Graduate Record Exam (GRE) scores: Verbal and Quantitative (Exceptions: Outstanding UT Arlington graduates may qualify for GRE waiver providing they meet certain requirements)
- Letters of Recommendation attesting to the applicant's potential to do Master's-level work and complete the program. Letters for Master's programs should be from professors or supervisors at work (download Letter of Recommendation form)
- Essay by applicant approximately one double-spaced page in length (approximately 250 words). The Essay is considered both for its content and quality of writing. The Essay should address the following questions: 1. Why do you want to earn a Master's degree in the program for which you are applying? 2. What relevant background and experience do you bring to the program? The essay can also include other concerns you'd like to bring to the attention of the Graduate Advisor or Master's Admissions Committee.
- Non-native English speakers only: TOEFL or IELTS scores (Exceptions: An applicant holding either a Bachelor's or a Master's degree from a regionally accredited U.S. college or university is not required to submit a TOEFL, TOEFL iBT, or IELTS score for admission purposes.)

### Waiver

- i. Submission of GRE scores may be waived for applicants to SUPA master's programs who hold a bachelor's degree from UTA with a 3.0 or higher GPA in their last 60 hours as calculated by the Graduate School.
- ii. Submissions of TOEFL or IELTS scores may be waived for applicants to SUPA master's programs who hold a Bachelor's or Master's degree from a regionally accredited U.S. college or university.

### Types of Admission

#### Unconditional Admission:

1. Applicants who meet all the following requirements will be considered for unconditional admission: a preferred minimum Writing GRE score of 4.0
2. Minimum Undergraduate GPA of 3.0
3. A preferred minimum Verbal GRE score of 450 (Revised GRE Test: 150), and preferred minimum Quantitative GRE of 450 (Revised GRE Test: 141), and a preferred minimum combined Verbal and Quantitative score of 1,000 (Revised Test Combined 291)
4. Outstanding letters of recommendation
5. Strong, well-written personal essay
6. Non-native English speakers only: TOEFL scores of at least 550 (paper-based), 213 (computer-based), or 79 (iBT) with sectional scores that meet or exceed 22 Writing, 21 Speaking, 20 Reading, and 16 Listening; or, IELTS score of at least 6.5.

#### Probationary Admission:

Applicants who do not meet all requirements for Unconditional admission will be considered for Probationary admission on the basis of the strength of all the listed admission factors. Test scores will not constitute the sole or primary basis for ending consideration of an applicant. Under Probationary admission, special course requirements or other conditions may be imposed by the SUPA Master's Admissions Committee. Applicants who meet all the standards for Unconditional admission except for deficiency in Writing GRE score will be considered for Probationary Admission conditional on completing an approved Writing course in their first semester.

#### Other types of admission decisions pertaining to Master's applicants:

1. **Deferred:** Applicants who are unable to supply required application materials, or who must complete additional preparatory work before their admissibility can be determined, may be deferred until records are complete.

2. **Provisional:** Applicants who are unable to supply all required documentation prior to the admission deadline but who otherwise appear to meet admission requirements may be granted Provisional admission pending submission of complete and satisfactory credentials before the start of classes in which they have registered in a Provisional status.
3. **Denied:** Applicants who fail to meet more than one of the admission requirements and for whom the SUPA Master's Admission Committee finds there is insufficient basis to justify any other kind of admission will be Denied admission. As the admission process is competitive, applicants meeting basic admission requirements who are less well qualified than other applicants may also be denied admission.

### Scholarship/Fellowship Criteria

- Graduate students with a GPA of 3.0 or better who are enrolled in six hours or more are eligible to apply for competitive scholarships and fellowships.
- Scholarships and fellowships for Master's and Doctoral students will be competitively awarded based on consideration of the all admission criteria assessed by their admitting programs.

### SUPA Inadequate Academic Progress Point System

A student may be subject to dismissal from the program if they accumulate 4 deficiency points while pursuing their Master's degree or their Ph.D. degree. Deficiency points may not be removed from a student's record by repeating a course or completing additional coursework. For students who complete a Master's degree in SUPA and proceed to work on a SUPA Ph.D., any accumulated deficiency points are not carried forward to the more advanced degree.

- D = 2 deficiency points
- F = 3 deficiency points
- I = 1 deficiency point
- W = 0.5 deficiency point

### Degree Requirements and Courses

A total of 39 (project-track) or 42 (thesis-track) credits are required to complete the degree.

#### Required Urban Core Courses (9 hours)

- URPA 5304 Urban Politics or URPA 5309 Intergovernmental Relations
- URPA 5300 Foundation of Urban Theory or URPA 5305 Theories of Urban Societies
- URPA 5306 The Urban Economy

#### Required Research and Analysis Courses (12-15 hours)

- URPA 5302 Foundations of Urban Research and Analysis
- URPA 5345 Evaluation Research

#### Project Track

- URPA 5341 Professional Report Writing or URPA 5342 Strategies for Urban Research or URPA 5344/CIRP 5346 Qualitative Analysis
- URPA 5396 Project Report

#### Thesis Track

- URPA 5342 Strategies for Urban Research or CIRP 5346 Qualitative Analysis
- URPA 5698 Thesis

### Areas of Concentration (18 hours)

Students can specialize in one of five concentration areas as described below. As an alternative, they can petition to substitute another self-designed concentration area, such as criminal justice, education policy, social work, or historical preservation.

#### Economic Development

This concentration is designed for students interested in understanding the politics, policy, and management of economic development. Students will learn about the legal and financial aspects of economic development as well as issues related to community development, land use, and real estate development.

**Required**

URPA 5312 Economic Policy or URPA 5364 Institutional and Other Radical Economic Theories  
URPA 5334 Management of Economic Development  
CIRP 5322 Economic Development Planning and Policy

**Economic Development Electives (choose 3)**

URPA 5311 Social Policy Formation  
URPA 5331 Land Use Planning and the Law (also offered as CIRP 5316)  
URPA 5332 Capital Budgeting  
URPA 5348 Cost-Benefit Analysis  
CIRP 5305 Land Use Management and Development  
CIRP 5310 Introduction to Urban Structure, Policy and Planning  
CIRP 5313 Urban Growth Policies  
CIRP 5323 Historic Preservation  
CIRP 5326 Cultural Planning & Urban Development  
CIRP 5345 Planning & Real Estate Development  
CIRP 5356 Introduction to Geographic Information Systems  
CIRP 5364 Economic Base and Industrial Development

**Environmental Policy**

This area of concentration is designed for students interested in careers in the public and private sectors which focus on environmental concerns. Students will study environmental policy in general and may choose to focus their attention of sustainable growth or transportation.

**Required**

URPA 5311 Social Policy Formation  
URPA 5317 Urban Environmental Policy (also offered as CIRP 5342)  
URPA 5365 Foundations of Environmental Policy (also offered as CIRP 5343)

**Environment Electives (choose 3)**

URPA 5307 Urban Geography  
URPA 5309 Intergovernmental Relations (if not selected as urban core requirement)  
URPA 5310 Urban Policy  
URPA 5312 Economic Policy  
URPA 5313 Community Development (also offered as CIRP 5324)  
URPA 5319 Urban Problems (also offered as CIRP 5342)  
URPA 5322 Politics, Policy, and Public Administration  
URPA 5330 Community and Neighborhood Organization  
URPA 5334 Management of Economic Development  
URPA 5348 Cost-Benefit Analysis  
URPA 5357 Strategic Planning and Management (also offered as CIRP 5312)  
CIRP 5306 Urban Revitalization  
CIRP 5309 Transportation/Land Use Modeling & Policy Analysis  
CIRP 5313 Urban Growth Policies  
CIRP 5315 Transportation Policy, Programs, and History  
CIRP 5316 Land Use Planning and the Law  
CIRP 5322 Economic Development Planning and Policy  
CIRP 5341 Environmental Regulations: Laws and Planning  
CIRP 5350 Environmental Planning  
CIRP 5351 Techniques of Environmental Assessment  
CIRP 5353 Environmental Law  
CIRP 5356 Introduction to Geographic Information Systems  
CIRP 5358 Intelligent Transportation Systems and Planning

## Non-Profit Management

This area of concentration is designed for students interested in careers in non-profit organizations. The curriculum is designed to education students on non-profit management issues as well as issues related to non-profit clientele and the role of non-profits in urban government in general. Students pursuing the non-profit concentration may also elect to work toward a Certificate in Non-profit Management (<http://www.uta.edu/supa/certificates/>).

### Required

URPA 5354 Management of Nonprofit Organizations  
 URPA 5355 Nonprofit Institutions

### Management Electives (chose at least 2, up to 4)

URPA 5303 The Metroplex  
 URPA 5313 Community Development (also offered as CIRP 5306: Urban Revitalization)  
 URPA 5318 Social Welfare Policy  
 URPA 5326 Public Budgeting  
 URPA 5329 Financial Management in the Public Sector  
 URPA 5330 Community and Neighborhood Organization  
 URPA 5333 Governmental and Nonprofit Accounting  
 URPA5348 Cost Benefit Analysis  
 URPA 5351 Personnel and Human Resources in the Public Sector  
 URPA 5352 Conflict Resolution  
 URPA5352 Personnel Management and Conflict Resolution in the Public Sector  
 URPA 5356 Public Entrepreneurial Management  
 URPA 5357 Strategic Planning, Policy, and Management  
 URPA 5358 Ethics in Public Service  
 URPA 5359 Organizational Diagnosis  
 CIRP 5319 Agencies of Planning and Administration  
 SOCW 5303 Foundations of Social Policy and Services  
 SOCW 6371 Community and Administrative Practice  
 SOCW 6363 Budgeting and Financial Management  
 SOCW 6386 Grant Proposal Development Seminar  
 MARK 5311 Marketing

### Field Electives (chose as many as required to make total electives of 4)

URPA 5311 Social Policy Formation  
 URPA 5312 Economic Policy  
 URPA 5315 Urban Education Policy  
 URPA 5317 Urban Environmental Policy (also offered as CIRP 5342)  
 URPA 5319 Urban Problems (also offered as CIRP 5342)  
 URPA 5362 Urban Diversity (also offered as CIRP 5362)  
 URPA 5363 Civil Rights and Urban Minorities  
 URPA 5365 Foundations of Environmental Policy (also offered as CIRP 5343)  
 URPA 5366 U.S. Immigration Policies and Planning for Immigrants  
 URPA 5391 Topics in Urban Policy  
 CIRP 5313 Urban Growth Policies  
 CIRP 5315 Transportation Policy, Programs, and History

## Urban Policy Analysis

This track is designed for students seeking a greater understanding in public policy. The curriculum is designed to give students an understanding of the politics and economics of public policy formation and implementation. Students in this track may choose to take courses related to a specific policy area (e.g., welfare, education, or transportation) or they may chose a more generalist perspective.

### Required

URPA 5304 The Urban Political System or URPA 5309 Intergovernmental Relations  
 (whichever not taken in core)  
 URPA 5311 Social Policy Formation

URPA 5312 Economic Policy or URPA 5364 Institutional and Other Radical Economic Theories

**Policy Electives (chose 3)**

URPA 5307 Urban Geography  
URPA 5308 Urban History  
URPA 5310 Urban Policy and the Law  
URPA 5312 Economic Policy  
URPA 5313 Community Development (also offered as CIRP 5324)  
URPA 5314 Health Policy  
URPA 5315 Urban Education Policy  
URPA 5316 Human Services  
URPA 5317 Urban Environmental Policy (also offered as CIRP 5342)  
URBA 5318 Social Welfare Policy  
URPA 5319 Urban Problems (also offered as CIRP 5342)  
URPA 5348 Cost-Benefit Analysis  
URPA 5362 Urban Diversity (also offered as CIRP 5362)  
URPA 5363 Civil Rights and Urban Minorities  
URPA 5365 Foundations of Environmental Policy (also offered as CIRP 5343)  
URPA 5366 U.S. Immigration Policies and Planning for Immigrants  
URPA 5391 Topics in Urban Policy  
CIRP 5313 Urban Growth Policies  
CIRP 5315 Transportation Policy, Programs, and History

**Urban Social Planning**

This concentration is designed for students interested in planning careers in non-profit and public agencies. The curriculum provides students with knowledge of community organizing and community development as well as offering them the opportunity to focus on specific social issues.

**Required**

URPA 5313 Community Development (also offered as CIRP 5324)  
URPA 5330 Community and Neighborhood Organization  
CIRP 5303 Planning History and Theory

**Social Planning Electives (chose 3)**

URPA 5307 Urban Geography  
URPA 5311 Social Policy Formation  
URPA 5315 Urban Education Policy  
URPA 5318 Social Welfare Policy  
URPA 5331 Land Use Planning and the Law (also offered as CIRP 5316)  
URPA 5349 Database Management for Urban Plan and Mgmt (also CIRP 5320)  
URPA 5362 Urban Diversity (also offered as CIRP 5362)  
URPA 5363 Civil Rights and Urban Minorities  
URPA 5393 Topics in Urban Planning  
URPA 5391 Topics in Urban Policy (depending on topic, with approval)  
CIRP 5304 Plan and Policy Implementation  
CIRP 5306 Urban Revitalization  
CIRP 5310 Introduction to Urban Structure, Policy and Planning  
CIRP 5311 Elements of Urban Design  
CIRP 5313 Urban Growth Policies  
CIRP 5344 Human Service Planning  
CIRP 5354 Housing Planning, Policy, & Finance  
CIRP 5356 Introduction to Geographic Information Systems  
CIRP 5358 Intelligent Transportation Systems and Planning

**Student Designed Plan**

With the guidance of the graduate advisor and program director, students can elect to create a concentration of study targeting their specific interests.



## Dual Degree Program

Students in Urban Affairs may participate in a dual degree program whereby they can earn a Master of Arts in Urban Affairs and a Master of Science in Social Work, or Master's in City and Regional Planning, or a Master's in Public Administration. By participating in a dual degree program, students can apply a number of semester hours jointly to meet the requirements of both degrees, thus reducing the total number of hours which would be required to earn both degrees separately. The number of hours which may be jointly applied ranges from nine to 18 hours, subject to the approval of Graduate Advisors from both programs. To participate in the dual degree program, students must make separate application to each program and must submit a separate Program of Work for each degree. Those interested in the dual degree program should consult the appropriate Graduate Advisor(s) for further information on course requirements. See also the statement on "Dual Degree Programs" in the general admission section of this catalog.

## PUAD Courses

### PUAD6399 – DISSERTATION

3 Lecture Hours · 0 Lab Hours

Graded F/R only.

### PUAD6699 – DISSERTATION

6 Lecture Hours · 0 Lab Hours

Graded F/R/P/W only.

### PUAD6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

Graded P/F/R.

### PUAD7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## SUPA Courses

### SUPA5300 – FOUNDATIONS OF URBAN PLANNING AND SOCIOLOGY

3 Lecture Hours · 0 Lab Hours

How urban communities develop as human settlements, their life cycles, expansion, and decay. Special consideration is given to social policy. Topics such as poverty, race, neighborhoods, and environment.

### SUPA5301 – FOUNDATIONS OF URBAN POLITICS AND ECONOMICS

3 Lecture Hours · 0 Lab Hours

Examines the major political and economic institutions and processes in urban communities and their effect on urban policy.

## UPPP Courses

### UPPP6399 – DISSERTATION

3 Lecture Hours · 0 Lab Hours

Graded R/F only.

### UPPP6699 – DISSERTATION

6 Lecture Hours · 0 Lab Hours

Graded R/F/P/W only.

### UPPP6999 – DISSERTATION

9 Lecture Hours · 0 Lab Hours

Graded P/F/R.

### UPPP7399 – DOCTORAL DEGREE COMPLETION

3 Lecture Hours · 0 Lab Hours

This course may be taken during the semester in which a student expects to complete all requirements for the doctoral degree and graduate. Enrolling in this course meets minimum enrollment requirements for graduation, for holding fellowships awarded by The Office of Graduate Studies and for full-time GTA or GRA positions. Students should verify that enrollment in this course meets other applicable enrollment requirements. To remain eligible in their final semester of study for grants, loans or other forms of financial aid administered by the Financial Aid Office must enroll in a minimum of 5 hours as required by the Office of Financial Aid. Other funding sources may also require more than 3-hours of enrollment. Additional hours may also be required to meet to requirements set by immigration law or by the policies of the student's degree program. Students should contact the Financial Aid Office, other sources of funding, Office of International Education and/or their graduate advisor to verify enrollment requirements before registering for this course. This course may only be taken once and may not be repeated. Students who do not complete all graduation requirements while enrolled in this course must enroll in a minimum of 6 dissertation hours (6699 or 6999) in their graduation term. Graded P/F/R.

## URPA Courses

### URPA5300 – FOUNDATION OF URBAN THEORY

3 Lecture Hours · 0 Lab Hours

Social theories that explain the life cycle of urban communities as they develop, expand, and are sustained or decay are presented and contrasted. Special consideration is given to role of social policy. Topics such as poverty, race, neighborhoods, and environment are addressed.

### URPA5301 – FOUNDATIONS OF URBAN POLITICS AND ECONOMICS

3 Lecture Hours · 0 Lab Hours

Examines the major political and economic institutions and processes in urban communities and their effect on urban policy.

### URPA5302 – FOUNDATIONS OF URBAN RESEARCH AND ANALYSIS

3 Lecture Hours · 0 Lab Hours

An introduction to research methodologies, both quantitative and qualitative, and statistical techniques useful in the analysis of urban trends and administrative programs. Previously taught as SUPA 5302.

### URPA5303 – THE METROPLEX: SURVEY OF URBAN AFFAIRS, PLANNING,



## **ADMINISTRATION:**

**3** Lecture Hours · **0** Lab Hours

The Metroplex provides an ideal laboratory for study with more than 100 cities and other governmental units, thousands of neighborhoods and business enterprises, major concentration of minorities and dozens of ethnic groups. An in-depth orientation on urban dynamics utilizing senior faculty members, governmental and community leaders, and current research reports and studies.

## **URPA5304 – URBAN POLITICS**

**3** Lecture Hours · **0** Lab Hours

Examination of the city as a political system, including the impact of urbanization and fragmentation on policies; input dimensions, including voting patterns and interest group development; decision-making structures, especially types of community power structures and the impact of the reform movement on structural processes. Also offered as POLS 5305; credit will be granted only once.

## **URPA5305 – THEORIES OF URBAN SOCIETY**

**3** Lecture Hours · **0** Lab Hours

Several theoretical perspectives of the community and community organization examined. Special emphasis given to theories from human ecology, organization and stratification, and social welfare.

## **URPA5306 – THE URBAN ECONOMY**

**3** Lecture Hours · **0** Lab Hours

Internal dynamics of the growth and development of the urban system and its relation to the national economy. National and urban economic policy, urban growth and land use, market imperfections, urban financial issues, and the environmental implications of urban growth studied through lecture, game simulation and policy debates.

## **URPA5307 – URBAN GEOGRAPHY**

**3** Lecture Hours · **0** Lab Hours

Emphasizes real aspects associated with urban physical environments and social, behavioral and financial processes that shape these environments.

## **URPA5308 – URBAN HISTORY**

**3** Lecture Hours · **0** Lab Hours

Extensive reading primarily in the history of the urbanization and metropolitanization of the people of the United States. Historical methods as exemplified in the works of leading historians and analyzed; examples of the scholarship of selected historians and treatises on selected cities, regions, and urban institutions studied.

## **URPA5309 – INTERGOVERNMENTAL RELATIONS**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of the implications of federalism, and the changing nature of intergovernmental relations on state and local management, administration, planning, and policy making.

## **URPA5310 – URBAN POLICY AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Critical analysis of federal government and selected state and local government policies and programs designed to influence the course of change and the future development of cities and urban areas. The role of "private" governments in affecting policy explored.

## **URPA5311 – SOCIAL POLICY FORMATION**

**3** Lecture Hours · **0** Lab Hours

Utilization of a sociological approach in the study of policy formation in such areas as aging, social

planning, and community problem solving.

### **URPA5312 – ECONOMIC POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines structure of the U.S. economic system and its impact on welfare of consumers, workers, and industry; public policy efforts to provide for management of critical economic variables are evaluated for effectiveness and equity as they impact different interest groups.

### **URPA5313 – COMMUNITY DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses on current problems of community development and neighborhood revitalization. Housing, community assets, the roles of community development corporations and social capital in cities, and community economic development will be analyzed. Federal, state, and local policies, with grassroots initiatives evaluated for effectiveness on promoting alternatives for community building and organizing. Also offered as CIRP 5324; credit will be granted only once.

### **URPA5314 – HEALTH POLICY**

**3** Lecture Hours · **0** Lab Hours

Current health policy and programs, examination of historical development, economic and legal aspects, interest groups and health constituencies.

### **URPA5315 – URBAN EDUCATION POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines current education policy and programs, including public school districts, charter schools, and vouchers; economic and political aspects; role of adult education programs in improving human capital.

### **URPA5316 – HUMAN SERVICES**

**3** Lecture Hours · **0** Lab Hours

Social welfare institutions: private and public; needs assessment, resource allocation, procedures, city/state/federal/private policy review; highlights of current system demands and changes. Offered as URPA 5316 and CIRP 5344; credit will be granted only once.

### **URPA5317 – ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Focuses on the physical environmental dimensions of urbanization including such factors as pollution, waste disposal, and land use; stresses the role of economic, social, and political institutions as these affect environmental quality of the city. Offered as CIRP 5342 and URPA 5317; credit will be granted only once.

### **URPA5318 – SOCIAL WELFARE POLICY**

**3** Lecture Hours · **0** Lab Hours

Examines recent welfare reform measures (federal, state, and local levels), the political issues behind them, and their influence on urban life. A central topic will be the impact of a changing society on social welfare policy needs, including analyses of labor force participation and family structure.

### **URPA5319 – URBAN PROBLEMS**

**3** Lecture Hours · **0** Lab Hours

Specific urban problems examined in depth, traced to their historical origins to see how they or similar problems have been dealt with in other times and places. Students will then propose possible solutions to the problems in their contemporary form. Offered as CIRP 5347 and URPA 5319.

### **URPA5320 – PUBLIC ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

Historical evolution of administrative theory including classical, sociological and social-psychological dimensions; decision-making theory; implications of public interest theory for public management; basic concepts of organization development and impact on public administration paradigms; new public administration; and future of public urban organization. Also offered as CRCJ 5309 and POLS 5303; credit will be granted only once.

### **URPA5321 – URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Focuses through lectures, readings, and exercises on major administrative process: personnel and policy development and analysis; management styles and key contemporary management problems explored through presentations by prominent local practitioners.

### **URPA5322 – POLITICS, POLICY AND PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

Development of theory of bureaucracy; bureaucracy as social issue; ethics and morality in public bureaucracy; mobilization of special interest support; power differentials in urban agencies; policy process in bureaucracy; new bureaucratic structures and processes for urban policy making.

### **URPA5323 – PUBLIC ORGANIZATIONAL CHANGE**

**3** Lecture Hours · **0** Lab Hours

Current theories and concepts of public organizational change with particular emphasis on organization development and action research; theoretical roots of contemporary change literature traced through readings and discussion of classical organization theory, public administration including New Public Administration decision making, public interest, phenomenology, learning theory and general systems. Prerequisite: basic organizational theory course or permission of instructor.

### **URPA5324 – URBAN PUBLIC FINANCE**

**3** Lecture Hours · **0** Lab Hours

Tax, revenue, and fiscal problems of cities and local governments in metropolitan areas; problems of matching costs and benefits in providing public services among different local governments; increasingly complex dimensions of intergovernmental fiscal relations and public budgeting systems. Offered as URPA 5324 and CIRP 5329; credit will be granted only once

### **URPA5325 – ADMINISTRATIVE LAW**

**3** Lecture Hours · **0** Lab Hours

Examines scope and role of administrative regulation of and by governmental agencies; explores constitutional principles which limit administrative power and administrative law which governs classical areas of conflict between administrative agencies and their constituencies; rule-making, judicial review and informal regulatory processes of importance to public officials.

### **URPA5326 – PUBLIC BUDGETING**

**3** Lecture Hours · **0** Lab Hours

This course introduces students to the principles and practices used by federal, state, and local governments to acquire and spend revenues within the context of American democracy, capitalism, federalism, and economics. The primary objective of this course is to provide students with the practical skills and theoretical knowledge to enable them to be effective participants in the budgeting process and critical consumers and producers of research relevant to public budgeting. Offered as CIRP 5328 and URPA 5326. Credit will be granted only once.

### **URPA5327 – COMPARATIVE ADMINISTRATION AND POLICY**

**3** Lecture Hours · **0** Lab Hours

Extensive, multidisciplinary exposure to concepts and models of administration in developed and modernizing countries; role of the military, bureaucracy and traditional elites in development; practices and concepts of strategies for effective change.

### **URPA5328 – SMALL CITY MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course will focus on problems peculiar to small cities, including administrative law; personnel, planning; public works, public safety; human services; budget and finance; public relations and parks and recreation.

### **URPA5329 – FINANCIAL MANAGEMENT IN THE PUBLIC AND NON-PROFIT SECTORS**

**3** Lecture Hours · **0** Lab Hours

Overview of the principles of finance as they apply to the public and non-profit sectors, financial reporting for state and local governments and non-profit organizations and evaluation.

### **URPA5330 – COMMUNITY AND NEIGHBORHOOD ORGANIZATION**

**3** Lecture Hours · **0** Lab Hours

Structure and processes in the analysis and development of community and neighborhood organizations; special emphasis given to poverty and minority communities and neighborhoods.

### **URPA5331 – LAND USE PLANNING AND THE LAW**

**3** Lecture Hours · **0** Lab Hours

Explores the law of land use in the context of the American legal, economic, and political systems. Examines leading court decisions and precedents for their background, content, and applicability to contemporary land use. Offered as CIRP 5316 and URPA 5331. Credit will be granted only once.

### **URPA5332 – PUBLIC CAPITAL BUDGETING**

**3** Lecture Hours · **0** Lab Hours

Examines governmental capital budgeting processes with a focus on understanding the significance of capital improvement planning, public facility investment, and project evaluation to sound infrastructure financing and regional economic growth. Governments purchase or construct long-lasting physical assets or facilities financed mostly through borrowing. This course aims to understand the rationale for public capital budgeting and debt instruments used to finance capital investment in the political context of public budgeting in America.

### **URPA5333 – GOVERNMENTAL AND NONPROFIT ACCOUNTING**

**3** Lecture Hours · **0** Lab Hours

This course is designed as an introduction to governmental and nonprofit accounting. The course reviews major fund accounting principles, accounting for budgetary, revenue, and expenditure funds, accounting for general capital assets and long-term liabilities, accounting for fiduciary and proprietary funds, auditing practices, and financial reporting unique to government and non-profit organizations.

### **URPA5334 – MANAGEMENT OF ECONOMIC DEVELOPMENT**

**3** Lecture Hours · **0** Lab Hours

This course focuses on the knowledge, organization, politics, issues, techniques and processes of local economic development. Emphasis is placed on contemporary issues and trends in the rich, dynamic laboratory of local economic development in Texas. Learning objectives include: 1) comprehension of basic techniques and issues such as strategic planning, leadership strategies, financial options and evaluation; 2) increased knowledge of the positive potential of thoughtful economic development for local environmental, infrastructure, and revenue challenges; and 3) enhanced professional development through individual and classroom exposure to successful practitioners.

### **URPA5341 – PROFESSIONAL REPORT WRITING**

**3** Lecture Hours · **0** Lab Hours

Provides students entering public sector employment with writing, management information, data retrieval skills to communicate ideas and information within and outside an agency; basic writing skills reviewed, including organization of reports and grammatical construction; assignments based on actual internship

position of students in public agencies.

### **URPA5342 – INTERMEDIATE DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An intermediate level examination of statistical and research techniques appropriate to urban and social analysis. Presuming a basic understanding of descriptive and inferential statistics, the course covers multivariate regression, including error analysis and non-linear models, path analysis, ANOVA, logit and probit models, and techniques for data reduction (e.g., factor analysis). Prerequisite: URPA 5302. Offered as URPA 5342 and CIRP 5317; credit will be granted only once.

### **URPA5343 – APPLIED URBAN ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Group and individual projects to develop research studies or strategies, data reports for local government, agency or citizen group; techniques appropriate to task utilized. P/F only.

### **URPA5344 – QUALITATIVE METHODS**

**3** Lecture Hours · **0** Lab Hours

The study of qualitative research and analysis methods. Offered as CIRP 5346 and URPA 5344; credit will be given only once.

### **URPA5345 – EVALUATION RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Methodological issues in evaluating public programs; identification of variables, indicators and analyses formats presented. Prerequisite: SUPA 5302 or URPA 5302.

### **URPA5346 – DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

### **URPA5347 – DEMOGRAPHIC METHODS**

**3** Lecture Hours · **0** Lab Hours

Examination of sources of data-census, vital statistics, special surveys, reports, special studies; techniques of analysis with particular emphasis on growth and projection models, interpretation of findings as a major policy area in urban analysis.

### **URPA5348 – COST BENEFIT ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Reviews theory of cost-benefit and cost-effective analyses; explores the research, measurement and methodological requirements for the assessments of costs and benefits. It is recommended that students have completed at least one graduate course in research and one graduate class in public finance.

### **URPA5350 – INTRODUCTION TO PUBLIC ADMINISTRATION**

**3** Lecture Hours · **0** Lab Hours

This is a graduate level introductory course designed to give students an understanding of public administration as a field of academic inquiry and professional practice within the context of American federalism, democratic values, institutional dynamics, and bureaucratic politics. In addition to contextually defining public administration, the course addresses government reform, intergovernmental relations, public ethics, organizational dynamics and behavior, personnel issues, budgeting, and e-governance.

### **URPA5351 – PUBLIC HUMAN RESOURCES**

**3** Lecture Hours · **0** Lab Hours

The purpose of this course is to familiarize students with key functions of government personnel systems,

discuss various theoretical approaches and techniques, and understand the major legal requirements of public personnel management. The course examines the structure, role, and evolution of the Civil Service, current personnel policies, and personnel management tasks such as examination, recruitment, position classification, and collective bargaining.

### **URPA5352 – CONFLICT RESOLUTION IN THE PUBLIC AND NONPROFIT SECTORS**

**3** Lecture Hours · **0** Lab Hours

Labor management at all levels of government, ability to work together to solve problems. Emphasis on collective and interest based bargaining, mediation, labor management partnership. Simulation exercises teach dynamics of bargaining, negotiation, problem solving, and small group dynamics.

### **URPA5353 – URBAN GOVERNMENT REFORM AND INNOVATION**

**3** Lecture Hours · **0** Lab Hours

Designed to acquaint students with urban governance reform and innovation. Course will explore how reformed government differs from traditional bureaucracy by contrasting it with entrepreneurial government and other innovations. Examines some of the areas most in need of reform, including service delivery, organizational capacity, and fiscal decentralization.

### **URPA5354 – MANAGEMENT OF NON-PROFIT ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines the different management areas and techniques within the nonprofit organization such as institutional management, leadership and management and the differences between them, fund-raising and financial administration, human resources-staff, volunteer, and board-coordination, internal needs assessment, planning, performance measurements, and the organizational environment and culture.

### **URPA5355 – NON-PROFIT INSTITUTIONS**

**3** Lecture Hours · **0** Lab Hours

This course examines non-profits as community institutions with an outward focus: the political, economic, and inter-organizational environment, fund-raising and financial management, community relations and needs assessment, the role of the volunteers, boards and community leaders, marketing, and legal and government issues.

### **URPA5356 – PUBLIC ENTREPRENEURIAL MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Public entrepreneurship involves the use of public powers, and partnerships with individuals, firms and other organizations, to achieve public purposes. The focus will be on creative management techniques and methods employed in managing the public sector.

### **URPA5357 – STRATEGIC PLANNING, POLICY AND MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Readings and case studies of strategic planning and management in the public and non-profit sectors; application of principles to an actual situation, involving stakeholder identification, environmental scanning, and formulation of mission statements, goals, and strategies. Offered as CIRP 5312 and URPA 5357. Credit will be granted only once.

### **URPA5358 – ETHICS IN THE PUBLIC SERVICE**

**3** Lecture Hours · **0** Lab Hours

This course examines public service theoretical ethics literature to provide a basis for each student to both reflect upon and expand their comprehension of the values and processes of ethical decision making. Beyond theoretical works, it addresses the application and evaluation of theory against the professional, workaday reality of case studies, ethical codes and other relevant materials. Three major learning objectives are: 1) achievement of a solid understanding of the dominant theoretical perspectives in the public service ethics literature; 2) competency in the development of guidelines and procedures that encourage ethical behavior, and 3) enhancement of the reach and resiliency of each member's personal

commitment to public service ethics.

### **URPA5359 – ORGANIZATIONAL DIAGNOSIS**

**3** Lecture Hours · **0** Lab Hours

This class deals with tools and techniques necessary to manage public organizations. The learning objectives include ability to conduct an organizational diagnostic; and familiarity with group procedures and facilitation techniques involved in organizational change.

### **URPA5360 – URBAN MANAGEMENT/PLANNING INTERNSHIP**

**3** Lecture Hours · **0** Lab Hours

Designed to integrate work experience and coursework through a series of brief work-related assignments; presentations by local planning and management practitioners and class discussions and exercises. Enrollment is open to both pre-entry and in-career students. Formal internship placements with agency mentors will be arranged. P/F only.

### **URPA5361 – INTERNATIONAL ORGANIZATIONS**

**3** Lecture Hours · **0** Lab Hours

The course focuses on the rise of governmental and nongovernmental organizations in geopolitics, international development, and environmental management. It analyzes their institutional histories, their organizational structures and cultures, and their role as institutional policy actors in the global diffusion of policy initiatives and managerial knowledge and practices.

### **URPA5362 – URBAN DIVERSITY**

**3** Lecture Hours · **0** Lab Hours

Examines the growing spatial and social diversity of cities; how physical as well as socioeconomic urban structures have fostered race, class, and gender inequalities; how urban policies have addressed and can address these issues. Offered as CIRP 5362 and URPA 5362.

### **URPA5363 – CIVIL RIGHTS AND URBAN MINORITIES**

**3** Lecture Hours · **0** Lab Hours

Examines the changes in and growth of the civil rights of minorities in the United States from the close of the Civil War to the present. This is accomplished through the study of court decisions, legislation, and the civil rights movement in the 1950s and 1960s, as seen through the eyes of contemporary writers, including William Faulkner, Alice Walker, and Alex Haley.

### **URPA5364 – INSTITUTIONAL AND OTHER RADICAL ECONOMIC THEORIES**

**3** Lecture Hours · **0** Lab Hours

Examines the theoretical bases of institutional and other radical paradigms of the economic process and the alternative economic policies that logically flow from them. These are compared to and contrasted with the orthodox, or neo-classical, theoretical model of economics, and the economic policies that logically are derived from it. Emphasis will be on how and why the neo-classical model remains the dominant model for economic policy in Western, capitalist countries.

### **URPA5365 – FOUNDATIONS OF ENVIRONMENTAL POLICY**

**3** Lecture Hours · **0** Lab Hours

Explores how environmental controversy is rooted in conflict between a number of schools of environmental policy thought with divergent perspectives on issues such as how to define progress, how to balance the needs of economy and ecosystem, how to cope with environmental complexity, and what role science should play in environmental affairs. Also offered as CIRP 5343; credit will be granted only once.

### **URPA5366 – US IMMIGRATION POLICIES AND PLANNING FOR IMMIGRANTS**

**3** Lecture Hours · **0** Lab Hours

A seminar course where weekly readings would include: perspectives on international migration theory; the



evolution of US immigration policy and national security; theories and urban issues related to immigrant assimilation and incorporation; urban ethnic economies and ethnic enclaves; segregation and housing of immigrants; globalization and immigrant labor networks; governance issues with providing education and other public services to immigrants and their children; and social work issues regarding generational conflict in immigrant families.

### **URPA5367 – STRATEGIC PUBLIC AND NONPROFIT HUMAN RESOURCES MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

This course is designed to acquaint students with the theory and practice of strategically developing, utilizing, and aligning human resources so that maximum contribution from each member of an organization is used toward the attainment of strategic long-range goals and objectives. Topics include HR strategy, diversity, leadership, selection, training and development, compensation, classification, performance appraisal, and future practices for public and non-profit organizations.

### **URPA5368 – PRACTICAL EMPLOYMENT FOR PUBLIC AND NONPROFIT MANAGERS**

**3** Lecture Hours · **0** Lab Hours

The course examines the rights and obligations of employers and employees. It does this by examining the legal background pertinent to public and nonprofit management. Topics addressed include employee selection, promotion and discipline, anti-discrimination legislation, gender and family issues legislation, environmental, safety and health issues, whistleblower legislation, immigration law, workerAs compensation, labor law, and drug and alcohol issues.

### **URPA5390 – TOPICS IN URBAN THEORY**

**3** Lecture Hours · **0** Lab Hours

Different topics explored on an intensive basis, especially recent theoretical approaches. May be repeated for credit as topic changes.

### **URPA5391 – TOPICS IN URBAN POLICY**

**3** Lecture Hours · **0** Lab Hours

Different topics and approaches in analysis of urban problems. May be repeated for credit as topic changes.

### **URPA5392 – TOPICS IN URBAN MANAGEMENT**

**3** Lecture Hours · **0** Lab Hours

Selected topics on current management problems including small city management, community-neighborhood relations, citizen involvement programs and techniques, personal and professional effectiveness as a total person, intergovernmental strategies and styles, public-private sector collaboration and co-planning, privatization, and other alternatives to economic service delivery. May be repeated as topic changes.

### **URPA5394 – SPECIAL TOPICS IN URBAN RESEARCH**

**3** Lecture Hours · **0** Lab Hours

Different topics each semester concentrate on a variety of methodological techniques and research strategies, such as demographic research and survey techniques. May be repeated for credit as topic changes.

### **URPA5395 – CONFERENCE COURSE IN URBAN AFFAIRS**

**3** Lecture Hours · **0** Lab Hours

Reading and research in a specialized area of urban affairs under the direction of a member of the graduate faculty.

### **URPA5396 – PROJECT REPORT**



**3 Lecture Hours · 0 Lab Hours**

Student prepares report focusing on specific policy or professional issue, utilizing appropriate research techniques; subject area and design of project report with consent of instructor. Graded P/F/R only.

### **URPA5397 – RESEARCH REPORT**

**3 Lecture Hours · 0 Lab Hours**

Student prepares report comparable to a journal article focusing on research issue, utilizing appropriate theory and research techniques; subject area and design of research report with consent of instructor. Graded P/F/R only. Prerequisite: URPA 5342.

### **URPA5398 – THESIS**

**3 Lecture Hours · 0 Lab Hours**

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded F, R.

### **URPA5399 – PUBLIC ADMINISTRATION CAPSTONE**

**3 Lecture Hours · 0 Lab Hours**

This integrative applied research course assesses the student's ability to analyze, synthesize, and formulate cogent recommendations to solve a real public sector problem. Students will write the capstone paper using concepts drawn from the MPA core curriculum, their chosen emphasis track, and the student's professional public work experience. Students are required to successfully defend their capstone paper before a Public Administration Forum consisting of SUPA faculty, students, and other interested parties. Prerequisite: completion of all other course work required for the MPA degree, including core courses and emphasis area courses, unless an exception is approved by the MPA advisor.

### **URPA5698 – THESIS**

**6 Lecture Hours · 0 Lab Hours**

A thesis conforming to University and departmental requirements may be prepared by graduate students in urban affairs. Graded P/F/R.

### **URPA6301 – THEORETICAL FOUNDATIONS AND PH.D. WORKSHOP**

**3 Lecture Hours · 0 Lab Hours**

Explores the development and function of theoretical models and frameworks. Examines the major theories from the social sciences designed for framing urban planning or administration issues and public policy. Designed to assist doctoral students in preparing their dissertation research. Opportunities to present work in progress, share ideas, and interact with faculty. Prerequisite: CIRP 5346 and either CIRP 5317 or URPA 5342.

### **URPA6305 – SEMINAR IN URBAN POLICY PROCESSES**

**3 Lecture Hours · 0 Lab Hours**

Final course in urban policy field; focus on the political, economic, and sociological institutions in the policy process, including various theoretical approaches, and application of these multidisciplinary perspectives in the analysis of specific policy issues.

### **URPA6306 – SEMINAR IN PUBLIC ADMINISTRATION**

**3 Lecture Hours · 0 Lab Hours**

Final course in the public administration field, focuses on review and integration of the theories and principles of public administration.

### **URPA6310 – MONETARY AND FISCAL POLICY: THE FEDERAL ROLE**

**3 Lecture Hours · 0 Lab Hours**

Examination of the role of the federal government in maintaining economic stability, ensuring full employment and controlling inflation; exploration of liberal interventionist, conservative and radical theories

of state economic management to assess the various policy alternatives and the importance of interest groups.

### **URPA6315 – PUBLIC ADMINISTRATION THEORY**

**3** Lecture Hours · **0** Lab Hours

This course is designed to critically examine public administration theory through the lenses of various governance models that have been proposed beginning with Weber's "ideal"; bureaucratic model through Osborne and Gaebler's market model to Fox and Miller's postmodern discourse model. The course begins by examining each governance model's stated or implied assumptions (about man, government, state, etc.) Second, the course considers the political philosophy and conceptual pillars on which the models are theoretically founded. Finally, the course examines the ideas of what constitutes a state as it might be relevant to a particular model and public administration.

### **URPA6320 – ADVANCED ORGANIZATION THEORY**

**3** Lecture Hours · **0** Lab Hours

The purpose of this advanced seminar is to examine the role of public agencies as organs of the State. It focuses on federal, urban, and nonprofit organizations. Learning objectives include understanding of interpretive, critical, and postmodern critiques of State's institutions; and application of power, knowledge, and gender lenses to the analysis of organizational practices, culture, and policy actions. Prerequisite: URPA 5320 or URPA 5323.

### **URPA6326 – PUBLIC BUDGETING & FINANCE**

**3** Lecture Hours · **0** Lab Hours

The primary objective of this seminar is to provide students with the theoretical underpinnings of budgeting and financial management in the public sector. Students will engage in in-depth discussions of public budgeting and financial management topics drawn from economics, decision-making models, urban politics, federalism, and others to be able to have a sound understanding of how fiscal decisions affect public administration and policy.

### **URPA6340 – RESEARCH DESIGN**

**3** Lecture Hours · **0** Lab Hours

Advanced course especially for Ph.D. students; covers logic of research design and problems of structure. Emphasis on empirical and quantitative studies.

### **URPA6346 – ADVANCED DATA ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

An introduction to selected advanced techniques related to planning analysis. Subjects include advanced applied regression analysis, multivariate logit analysis, and multinomial logistic regression. Applications of projection techniques, land use and transportation models, and methods of regional analysis. Offered as CIRP 6346 and URPA 6346. Credit will be given only once.

### **URPA6349 – DECISION MAKING AND PUBLIC POLICY ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

This course explores the theoretical, practical, and topical connections between public policy and public administration through a decision-making lens. The objectives of the course are to enable students to identify, critique, and connect the theoretical and meta-theoretical assumptions of decision-making models to models of public policy analysis and public administration. Course objectives will be pursued through readings, seminar discussions, and research-based assignments that focus on the intersection between decision-making, public policy, and public administration.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[School of Architecture](#)[College of Business](#)[College of Education and Health Professions](#)[College of Engineering](#)[College of Liberal Arts](#)[Art + Art History](#)[Communication](#)[Criminology & Criminal Justice](#)[English](#)[History](#)[Humanities](#)[Modern Languages](#)[Linguistics](#)[Music](#)[Philosophy & Humanities](#)[Political Science](#)[Sociology and Anthropology](#)[Theatre Arts](#)[College of Nursing](#)[College of Science](#)[School of Social Work](#)[School of Urban and Public Affairs](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Humanities

College of Liberal Arts

Web [www.uta.edu/huma/gradhuma/](http://www.uta.edu/huma/gradhuma/)Email [hekman@uta.edu](mailto:hekman@uta.edu)

Phone 817.272.2764

Fax 817.272.5807

305 Carlisle Hall

## Department Information

### Objective

#### Admission Requirements

- **Unconditional Admission**
- **Probationary Admission**
- **Provisional Admission**
- **Admission Deferral and Denial**
- **Fellowships**

#### Degree Requirements

- **Master of Arts in the Humanities**

### Objective

The Graduate Humanities Program offers a course of study designed to instill understanding across the spectrum of fields traditionally identified as the Humanities, the study of humankind and of the cultures it has created. The Humanities includes history; philosophy; languages; linguistics; literature; anthropology; the history, theory and criticism of the fine arts; ethics; comparative religion; social and political theory; and those aspects of the social sciences employing historical or philosophical approaches or methodologies that subordinate quantitative procedures to an interpretive and qualitative evaluation of their subject matters. The program combines a strong foundation in the concepts and methods shared by the humanities with intensive study in an area of concentration that synthesizes or integrates two or more disciplines. It is not suited for those wishing to pursue a traditional disciplinary degree, because its views, subject matter and methods transcend those normally allowed in a single discipline. Study in the Humanities allows integration and forging connections across disciplinary boundaries. Coursework and examinations must reflect the methods and perspectives of the Humanities.

The foundation of the program is a series of courses, taken at the outset of study, whose purpose is to enhance a student's ability to view complex issues from a variety of perspectives. Drawing on classical and contemporary approaches, the foundation courses present and illustrate the basic concepts, the theoretical frameworks, and the methods of the humanities.

The Master's Program in Graduate Humanities, after the completion of foundation courses, applies the methods and perspectives of the Humanities foundation in integrating the subject areas of concentration. Graduates of the program utilize these abilities in teaching, research, translation, the ministry, government service, and private non-profit organizations. Each student's course of study is planned individually and provides in-depth training in a specialization within the context of the Humanities' traditional focus on human goals, needs, and values.

## Admission Requirements

Potential students must apply for admission through, and supply all information and meet all admission standards required by, the Graduate School. In addition, the following information will be considered in determining admission status into the Graduate Humanities Program:

1. a GPA no lower than 3.0 for all undergraduate work
2. GRE scores falling in the range of or surpassing those submitted by typical students in our program: Verbal - 540-610; Quantitative - 540-640; Analytic - 580-640 or Analytic Writing - 3-5.
3. three satisfactory letters of recommendation, as judged by the graduate advisor
4. a satisfactory written summary of degree objectives, as judged by the graduate advisor

## Unconditional Admission

For unconditional admission students must meet all four requirements.

## Probationary Admission

Students not meeting all of the requirements may still be considered for probationary admission; no single criterion will end consideration of an applicant. Students entering the program under probationary status will be granted unconditional admission only after completing 12 hours of graduate courses, approved by the graduate advisor, earning no grade below B.

## Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

## Admission Deferral and Denial

Students will be denied admission or admission will be deferred if they perform poorly on all of the above criteria. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

## Fellowships

Fellowships, when available, will be awarded on a competitive basis. Nominees for the Graduate School Master's Fellowship in Humanities will be selected based on the following criteria:

- Candidates must be new students entering in the fall semester, with a minimum of 6 hours of enrollment in both long semesters to retain their fellowships.
- The minimum undergraduate GPA requirement is 3.00, as calculated by the Graduate School, plus a GPA of 3.0 for any graduate hours.
- Transcript of a completed bachelor's degree from an accredited institution.
- Three letters of recommendation.
- A written statement explaining the applicant's reasons for graduate study in Humanities.

## Degree Requirements



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[School of Architecture](#)[College of Business](#)[College of Education and Health Professions](#)[College of Engineering](#)[College of Liberal Arts](#)[Art + Art History](#)[Communication](#)[Criminology & Criminal Justice](#)[English](#)[History](#)[Humanities](#)[Modern Languages](#)[Linguistics](#)[Music](#)[Philosophy & Humanities](#)[Political Science](#)[Sociology and Anthropology](#)[Theatre Arts](#)[College of Nursing](#)[College of Science](#)[School of Social Work](#)[School of Urban and Public Affairs](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Philosophy and Humanities

College of Liberal Arts

### Chair Kenneth Williford

Web [www.uta.edu/philosophy/](http://www.uta.edu/philosophy/)Email [hekman@uta.edu](mailto:hekman@uta.edu)

Phone 817.272.0505

Fax 817.272.5807

305 Carlisle Hall

### Graduate Faculty

#### Professor

[Susan Hekman](#)

#### Associate Professor

[Lewis Baker](#)[Keith Burgess-Jackson](#)[Charles Chiasson](#)[Charles Nussbaum](#)[Harry Reeder](#)[Kenneth Williford](#)

#### Assistant Professor

[Miriam Byrd](#)

### Department Information

#### Courses

## Department Information

#### Objective

- [The Cooperative Philosophy Doctoral Program](#)
- [The Graduate Humanities Master's Program](#)

#### Objective

The Philosophy and Classical Studies Programs at UT Arlington actively participate in the cooperative philosophy Ph.D. program with the University of North Texas and in the Graduate

Humanities M.A. Program at UT Arlington. Our graduate course offerings in philosophy and in classics also support other graduate programs, particularly those in the humanities disciplines and in the social sciences at UT Arlington. These courses provide *inter alia* the theoretical background necessary to the complete understanding and use of professional skills in such ancillary areas.

### The Cooperative Philosophy Doctoral Program

The Ph.D. program in philosophy at the University of North Texas is a cooperative one between UNT and the Philosophy Program at UT Arlington, drawing upon the expertise of the faculty of both institutions. Students apply for admission to the Ph.D. program through the degree granting institution, UNT. Upon admission, students are able to register for graduate courses at either participating institution and to make use of the academic resources available at either institution. Students are required to complete a minimum of 15 graduate semester credit hours at each participating institution. See the online Student Handbook for the Program ( [www.uta.edu/philosophy/PhDhandbook.htm](http://www.uta.edu/philosophy/PhDhandbook.htm)) and, also, visit the web page of UNT's Department of Philosophy and Religion Studies ([www.phil.unt.edu/programs/graduate/](http://www.phil.unt.edu/programs/graduate/) ). For more information, contact Professor Robert Frodeman ([frodeman@unt.edu](mailto:frodeman@unt.edu)) at the University of North Texas.

### The Graduate Humanities Master's Program

Through the Graduate Humanities Program, UT Arlington offers courses of study leading to the Master of Arts in the Humanities. These courses of study are designed to instill understandings across the spectrum of those fields traditionally identified as "the humanities." The Graduate Humanities program is not suited for those wishing to pursue a traditional disciplinary degree, because its views, subject matter and methods transcend those normally allowed in a single discipline. It aims to integrate different disciplines within the humanities and to articulate connections across disciplinary boundaries. Coursework and examinations reflect the methods and perspectives of the humanities. Philosophical Studies is a possible area of concentration within the Graduate Humanities Program.

## CLAS Courses

### CLAS5392 – TOPICS IN CLASSICAL STUDIES

3 Lecture Hours · 0 Lab Hours

Studies in the social, political and cultural systems of the ancient Greeks and Romans, including their influence upon subsequent societies. May be repeated for credit as the topic changes.

## GREK Courses

### GREK5391 – CONFERENCE COURSE IN GREEK

3 Lecture Hours · 0 Lab Hours

May be taken only with the permission of the instructor and the Graduate Advisor.

## HUMA Courses

### HUMA5300 – CONCEPTUAL BASES OF THE HUMANITIES

3 Lecture Hours · 0 Lab Hours

Introduces students to fundamental concepts, methods, and issues central to the humanities. Particular attention will be given to a variety of epistemological approaches in humanistic inquiry, to theories of interpretation as applied to cultural constructs, and to recent issues and problems in the humanities. Required of all MA candidates in the humanities.

## **HUMA5303 – APPROACHES TO THE STUDY OF CULTURE**

**3** Lecture Hours · **0** Lab Hours

Examination of the theories and methods by which culture and society have been studied. Discussion of the relationship among natural scientific, social scientific, and humanistic methodologies. Fulfills Foundation requirement.

## **HUMA5304 – CULTURAL STUDIES**

**3** Lecture Hours · **0** Lab Hours

The study of how elements of culture, particularly texts, practices, and material objects, are interconnected with structures of power. Topics may include analyses of cultural studies in various humanities disciplines, theoretical approaches to cultural studies, and the relationship between cultural studies and the traditional humanities disciplines. Fulfills Foundation requirement.

## **HUMA5306 – CRITICISM, LANGUAGE, AND HISTORY**

**3** Lecture Hours · **0** Lab Hours

This course examines the ways in which linguistics, literary criticism and history have intersected in 20th century thought. Areas of analysis may include anthropology, historiography, poetics, rhetoric, semiotics, and/or structuralism. Fulfills Foundation requirement.

## **HUMA5307 – TOPICS IN GENDER STUDIES**

**3** Lecture Hours · **0** Lab Hours

Analysis of the role of gender studies in the humanities disciplines. Topics may include examination of the methods and conclusions of gender analysis in history, the social sciences, philosophy, or literary criticism. Fulfills Foundation requirement.

## **HUMA5391 – CONFERENCE COURSE IN THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

## **HUMA5392 – TOPICS IN THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

Selected topics of interdisciplinary interest. May be repeated for credit when subject matter changes.

## **HUMA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this when in consultation over the thesis with the supervisory committee.

## **HUMA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee and (b) in the semester or term in which the Master of Arts degree will be conferred.

## **HUMA6391 – READINGS IN THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

Supervised individual study for students preparing for the comprehensive examination. May be repeated for credit.

## **LATN Courses**

### **LATN5301 – INTENSIVE LATIN FOR READING I**



**3** Lecture Hours · **0** Lab Hours

Covers approximately the same material as LATN 1441/1442 (Levels I and II).

### **LATN5302 – INTENSIVE LATIN FOR READING II**

**3** Lecture Hours · **0** Lab Hours

Covers approximately the same material as LATN 2313/2314 (Levels III and IV).

### **LATN5391 – CONFERENCE COURSE IN LATIN**

**3** Lecture Hours · **0** Lab Hours

May be taken only with the permission of the instructor and the Graduate Advisor.

## **PHIL Courses**

### **PHIL5391 – CONFERENCE COURSE IN PHILOSOPHY**

**3** Lecture Hours · **0** Lab Hours

May be taken only with the permission of the instructor and Graduate Advisor.

### **PHIL5392 – TOPICS IN THE HISTORY OF PHILOSOPHY**

**3** Lecture Hours · **0** Lab Hours

Consideration in depth of the work of a single philosopher or a related philosophical school against the background of the development of philosophy. May be repeated for credit as the topic changes.

### **PHIL5393 – PHILOSOPHICAL PERSPECTIVES ON THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

A philosophical inquiry into problems and issues of relevance in humanistic disciplines. May be repeated for credit as the topic changes.

### **PHIL6389 – SEMINAR IN PHILOSOPHICAL ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Seminar-style treatment of some major problem in contemporary philosophy. May be repeated for credit as the topic changes.

### **PHIL6394 – TOPICS IN SYSTEMATIC PHILOSOPHY**

**3** Lecture Hours · **0** Lab Hours

In-depth treatment of an issue or issues in metaphysics, epistemology, ethics, aesthetics or related subdisciplinary areas. May be repeated for credit as the topic changes.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



The basic general admission and degree requirements are those of the Graduate School, as stated in this catalog. A Student Handbook is provided each student in the Graduate Humanities Program. Students are responsible for all information regarding rules, policies, and procedures as defined in the student handbook. In addition, all MA students must fulfill the following requirements:

1. **Foundation requirement-** Three courses are required. All students must complete the Conceptual Bases of the Humanities (HUMA 5300) within the first two semesters in the program. Students must also take two of the remaining four foundation courses: HUMA 5303, HUMA 5304, HUMA 5306, HUMA 5307.
2. **Foreign Language requirement-** students must demonstrate the ability to use one foreign language as a research tool in the humanities by means of a translation or other written exercise.
3. **Scope requirement-** for the remaining hours of coursework, students will devise an integrated program of multidisciplinary study drawing on more than one disciplinary prefix within the humanities disciplines with the advice of their committees. No more than 15 hours may be taken in any one discipline.

### Master of Arts in the Humanities

Students may choose a thesis or non-thesis option. The thesis option requires 30 credit hours, 24 hours of course work plus 6 hours of thesis preparation. Thesis students must pass an oral defense of the thesis upon its completion. The non-thesis option requires 36 hours of course work and the preparation of a qualifying paper. Non-thesis students must pass a comprehensive examination at the end of their program of study.

## CLAS Courses

### CLAS5392 – TOPICS IN CLASSICAL STUDIES

3 Lecture Hours · 0 Lab Hours

Studies in the social, political and cultural systems of the ancient Greeks and Romans, including their influence upon subsequent societies. May be repeated for credit as the topic changes.

## GREK Courses

### GREK5391 – CONFERENCE COURSE IN GREEK

3 Lecture Hours · 0 Lab Hours

May be taken only with the permission of the instructor and the Graduate Advisor.

## HUMA Courses

### HUMA5300 – CONCEPTUAL BASES OF THE HUMANITIES

3 Lecture Hours · 0 Lab Hours

Introduces students to fundamental concepts, methods, and issues central to the humanities. Particular attention will be given to a variety of epistemological approaches in humanistic inquiry, to theories of interpretation as applied to cultural constructs, and to recent issues and problems in the humanities. Required of all MA candidates in the humanities.

### HUMA5303 – APPROACHES TO THE STUDY OF CULTURE

3 Lecture Hours · 0 Lab Hours

Examination of the theories and methods by which culture and society have been studied. Discussion of the relationship among natural scientific, social scientific, and humanistic methodologies. Fulfills

Foundation requirement.

### **HUMA5304 – CULTURAL STUDIES**

**3** Lecture Hours · **0** Lab Hours

The study of how elements of culture, particularly texts, practices, and material objects, are interconnected with structures of power. Topics may include analyses of cultural studies in various humanities disciplines, theoretical approaches to cultural studies, and the relationship between cultural studies and the traditional humanities disciplines. Fulfills Foundation requirement.

### **HUMA5306 – CRITICISM, LANGUAGE, AND HISTORY**

**3** Lecture Hours · **0** Lab Hours

This course examines the ways in which linguistics, literary criticism and history have intersected in 20th century thought. Areas of analysis may include anthropology, historiography, poetics, rhetoric, semiotics, and/or structuralism. Fulfills Foundation requirement.

### **HUMA5307 – TOPICS IN GENDER STUDIES**

**3** Lecture Hours · **0** Lab Hours

Analysis of the role of gender studies in the humanities disciplines. Topics may include examination of the methods and conclusions of gender analysis in history, the social sciences, philosophy, or literary criticism. Fulfills Foundation requirement.

### **HUMA5391 – CONFERENCE COURSE IN THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

### **HUMA5392 – TOPICS IN THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

Selected topics of interdisciplinary interest. May be repeated for credit when subject matter changes.

### **HUMA5398 – THESIS**

**3** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this when in consultation over the thesis with the supervisory committee.

### **HUMA5698 – THESIS**

**6** Lecture Hours · **0** Lab Hours

The graduate student must be registered for this course (a) when in consultation over the thesis with the supervisory committee and (b) in the semester or term in which the Master of Arts degree will be conferred.

### **HUMA6391 – READINGS IN THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

Supervised individual study for students preparing for the comprehensive examination. May be repeated for credit.

## **LATN Courses**

### **LATN5301 – INTENSIVE LATIN FOR READING I**

**3** Lecture Hours · **0** Lab Hours

Covers approximately the same material as LATN 1441/1442 (Levels I and II).

## **LATN5302 – INTENSIVE LATIN FOR READING II**

**3** Lecture Hours · **0** Lab Hours

Covers approximately the same material as LATN 2313/2314 (Levels III and IV).

## **LATN5391 – CONFERENCE COURSE IN LATIN**

**3** Lecture Hours · **0** Lab Hours

May be taken only with the permission of the instructor and the Graduate Advisor.

## **PHIL Courses**

### **PHIL5391 – CONFERENCE COURSE IN PHILOSOPHY**

**3** Lecture Hours · **0** Lab Hours

May be taken only with the permission of the instructor and Graduate Advisor.

### **PHIL5392 – TOPICS IN THE HISTORY OF PHILOSOPHY**

**3** Lecture Hours · **0** Lab Hours

Consideration in depth of the work of a single philosopher or a related philosophical school against the background of the development of philosophy. May be repeated for credit as the topic changes.

### **PHIL5393 – PHILOSOPHICAL PERSPECTIVES ON THE HUMANITIES**

**3** Lecture Hours · **0** Lab Hours

A philosophical inquiry into problems and issues of relevance in humanistic disciplines. May be repeated for credit as the topic changes.

### **PHIL6389 – SEMINAR IN PHILOSOPHICAL ANALYSIS**

**3** Lecture Hours · **0** Lab Hours

Seminar-style treatment of some major problem in contemporary philosophy. May be repeated for credit as the topic changes.

### **PHIL6394 – TOPICS IN SYSTEMATIC PHILOSOPHY**

**3** Lecture Hours · **0** Lab Hours

In-depth treatment of an issue or issues in metaphysics, epistemology, ethics, aesthetics or related subdisciplinary areas. May be repeated for credit as the topic changes.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
©2013 [The University of Texas at Arlington](#)



UNIVERSITY OF  
**TEXAS**  
ARLINGTON

OFFICE OF  
GRADUATE STUDIES

[Print This Page](#) | [Search](#)

# 2013-2014 Graduate Catalog

[Home](#)

[Degree Requirements](#)

[Fields of Study](#)

[School of Architecture](#)

[College of Business](#)

[College of Education and  
Health Professions](#)

[College of Engineering](#)

[College of Liberal Arts](#)

[Art + Art History](#)

[Communication](#)

[Criminology & Criminal  
Justice](#)

[English](#)

[History](#)

[Humanities](#)

[Modern Languages](#)

[Linguistics](#)

[Music](#)

[Philosophy & Humanities](#)

[Political Science](#)

[Sociology and  
Anthropology](#)

[Theatre Arts](#)

[College of Nursing](#)

[College of Science](#)

[School of Social Work](#)

[School of Urban and Public  
Affairs](#)

[Admissions Requirements &  
Procedures](#)

[General Information &  
Regulations](#)

[Graduate Calendar](#)

[Graduate Faculty](#)

[Table of Contents](#)

[Index](#)

## Theatre Arts

College of Liberal Arts

### Chair Kim Lafontaine

Web [www.uta.edu/theatre/](http://www.uta.edu/theatre/)

Email [theatrearts@uta.edu](mailto:theatrearts@uta.edu)

Phone 817.272.2650

Fax 817.272.2697

### Graduate Faculty

#### Professor

[Andrew Gaupp](#)

[Kim Lafontaine](#)

#### Associate Professor

[Joe Chapa](#)

[Joseph Kongevick](#)

[Dennis Maher](#)

### Department Information

#### Courses

## Department Information

### Objective

The graduate course offerings in theatre arts are provided to support other graduate degree programs and to meet the express needs of students. No program leading to a graduate degree in theatre arts exists at this time.

### THEA Courses

#### THEA5393 – TOPICS IN THEATRE ARTS

3 Lecture Hours · 0 Lab Hours

Special topics in theatre; offered periodically, with subject matter determined by instructor and student interest. Previous topics have included: Design Portfolio Workshop; Alternative Actor Training Workshop;

Playwriting; Improvisation; and Styles in Acting.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax 817.272.1494  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[Proposed Admissions Changes Effective August 2014](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Proposed Admissions Changes Effective August 2014

The following presents proposed changes as they would appear in the relevant sections of the catalog.

- [MSHRM \(Master of Science in Human Resource Management\)](#)
- [Department of English Doctoral Program](#)
- [Master's in Accounting \(M.S.\) Professional Accounting \(M.P.A.\), Taxation \(M.S.\) Programs](#)
- [Public Administration Master's Program](#)
- [Urban Planning and Public Policy Ph.D. Program](#)

### MSHRM (Master of Science in Human Resource Management)

#### Summary of proposed changes:

1. GPA change from 3.25 to 3.0
2. Increase index score from 1080 to 1100
3. Increase GMAT score from 480 to 500
4. Increase GRE score to the 50th percentile.

Admission to the MSHRM program is based upon the completion of the general admission requirements of the Graduate School. For admission into the MSHRM program an acceptable score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) and acceptable academic undergraduate performance are required. The GMAT is strongly preferred.

Students for whom English is not their native language must also take the Test of English as a Foreign Language (TOEFL), TOEFL iBT, Test of Spoken English (TSE) or International English Language Testing System (IELTS). International applicants that score below minimum acceptable levels on the verbal portion of entrance examinations may be admitted under the condition that they pass an English proficiency exam or complete UT Arlington's Graduate English Skills Program prior to beginning graduate coursework.

A standardized test score (GMAT or GRE) will not be used as the sole criterion for determining an applicant's admission to the MSHRM program. Specifically, multiple criteria are used to make admission decisions. Unconditional acceptance is based on consideration of all the information listed below and the decision to deny admission is not based on any single criterion.

Applicants are encouraged to submit with their application a resume that highlights professional and personal accomplishments, linguistic abilities, computer expertise and leadership experience.

Along with the grade point average and GMAT or GRE scores, admission criteria include the following:

1. An undergraduate grade point average (GPA) of 3.25-3.0 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful candidate. The grade point average is calculated on your undergraduate degree using approximately the last 60 hours. A graduate grade point average is used in the index when it is 3.0 or above and is based on at least 24 hours. This will be integrated into a formula or index that multiplies the GPA by 200 and adds the resulting value to the GMAT Score. An index score greater than 1080-1100 is typical of a successful candidate.
2. A GMAT score of 500 or greater, with sub scores (verbal and quantitative) in the 30th percentile or greater is typical of a successful candidate. While the GMAT is strongly preferred, the GRE is acceptable. GRE sub scores (verbal and quantitative) in the 50th percentile or greater, is typical of a successful candidate.
3. International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum score of 40 on the TSE, a minimum score of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement.
4. Grades in specified undergraduate business and non-business courses (math, accounting, economics, statistics, for example)
5. Educational objectives and quality of written expression of the 200 word application essay.
6. Letters of recommendation from three persons familiar with the applicant's academic background and/or work experience who can assess the applicant's potential success in graduate school.
7. General and specific program accreditation status of degree-granting institution.
8. Professional work experience.
9. Professional certification or licensure.

### Unconditional Admission

For unconditional admission, the applicant's composite total from the index must be 1080 or higher and items 1 through 9 above should strongly indicate potential for successful academic performance as a graduate HR student.

Students who are unconditionally admitted, have a minimum undergraduate grade point average of 3.00 as calculated by the Graduate School (or 3.00 at the graduate level), and enroll for a minimum of six semester credit hours will be eligible for available fellowship and/or scholarship support. A standardized test score (GMAT) will not be used as the sole criterion for determining fellowship and/or scholarship eligibility.

### Probationary Admission

For an applicant with an index score below 1080, probationary admission may be available when at least three items of 1 through 5 above strongly indicate potential for successful academic performance as a graduate HR student. Items 6 through 9 will also be used to identify positive indicators for admission. Students who are admitted on probation will have one or more conditions specified, such as no grade less than "B" for the first 12 hours of graduate study.

### Provisional, Deferred and Denied Admission

A provisional decision to admit may be granted when the applicant meets criteria for unconditional or probationary status but one or more applicant credentials are incomplete. A deferred decision may be made when an applicant's file is not sufficiently complete to make an admit or deny decision.

For an applicant with an index score less than 1040 and other evidence indicating lack of potential

for academic success as a graduate HR student, admission will likely be denied. However, all applicant data will be carefully reviewed before an admission denial is made

## Department of English Doctoral Program

### Summary of proposed changes:

1. Increase verbal subtest score requirement from 500 to 550 (old scoring method). As the scoring method on the GRE has changed, program includes the new score equivalent to 550, which is 156 on the new scale.
2. Expected length of the writing sample is defined (15-20 pages)

### Proposed Criteria for Admission: Ph.D. Program

1. A minimum GPA of 3.5 in the student's M.A. in English or a very closely related field. (If the M.A. is not in English, we will consider the undergraduate GPA as well as that of the M.A. Moreover, if the M.A. is not in a very closely related field, the prospective student will be admitted to the M.A. program in English, not the Ph.D.)
2. GRE scores: GRE scores: a minimum of at least 156 on the current verbal subtest (550 on the previous version) and at least a 4.5 on the Analytical Writing measure. We will not consider the math scores. We do not require the English subject test.
3. A writing sample of 15 to 20 pages that demonstrates a sophisticated prose style, the ability to engage in intellectually rigorous modes of analysis, and a strong knowledge of rhetoric, composition studies, literary studies, cultural studies, or interdisciplinary critical theory.
4. Letters of recommendation that attest to the student's intellectual and scholarly potential. At least two of these must be from former professors; at least one must be a professor from the student's Master's program.

### Deferred Decision

A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

### Provisional Admission

An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission.

### Probationary Admission

For both M.A. and Ph.D., students may be admitted on probation under two different scenarios: 1) if the prospective student's application materials do not meet two of the four standards, but are outstanding in the remaining two categories; or 2) if the prospective student's materials come extremely close to meeting the standards in at least three of the four areas. Students on academic probation must make no grade lower than a "B" in the first 12 hours of their graduate work in order to remain in the program.

### Denial

Admission will be denied if the application materials 1) do not meet the standards in three of the four categories; or 2) if the materials do not meet the standards in two of the categories, and in the remaining two categories meet the standards but in an unexceptional manner.

## Master's in Accounting (M.S.) Professional Accounting (M.P.A.), Taxation (M.S.) Programs

### Summary of proposed changes:



- Increase GMAT total score from 500 to 550;
- Increase GMAT percentile verbal score from 30th to 40th percentile;
- Increase GMAT percentile quantitative score from 30th to 40th percentile;

## Admissions Requirements

### Degree-Seeking Students Regular Admission

The Department of Accounting's (the Department) admission criteria for its master's programs have been developed to conform to State of Texas requirements and are based on the general admission requirements of the Graduate School. Applicants are encouraged to include a resume that highlights professional and personal accomplishments with their application.

All applications for admission are reviewed individually. Admission decisions are based on factors associated with academic success in graduate study and may include any of the following criteria:

1. undergraduate grade point average,
2. graduate grade point average,
3. GMAT scores,
4. professional work experience,
5. professional certification or licensure,
6. letters of reference,
7. the applicant's personal statement,
8. prior successful completion of a baccalaureate degree,
9. prior successful completion of a postbaccalaureate degree, and
10. general and specific program accreditation status of the applicant's degree granting institution(s).

Standardized test scores are not used as the sole criterion for admitting applicants or the primary criterion for denying admission to applicants.

Depending on the circumstances applicants may:

1. Have their application denied or deferred; or
2. Receive unconditional, probationary, or provisional admittance.

Applicants whose documentation does not satisfactorily demonstrate readiness for graduate study may be denied admission. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate.

Unconditional admission is granted to applicants whose documentation clearly demonstrates a readiness for graduate study. Probationary admission may be granted to individuals who do not meet the Department's admission requirements but who nevertheless show promise for successful graduate study. Students admitted on this basis must meet certain academic requirements to remain in the program (such as no grade less than 'B' for first 12 hours of graduate study). An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisional status lasts through the initial semester of admission.

### Admission Criteria

The Department has four alternative sets of conditions that allow applicants to be unconditionally admitted without review by the Department's Admission and Petition Committee. The Departmental graduate advisor reviews all applications and determines if they qualify for admission under one of these four sets of criteria. Applicants who do not satisfy any of the following sets of conditions for unconditional admission are referred to the Departmental Admission and Petition Committee for consideration.

### **Unconditional Admission without Committee Review:**

Applicants qualify for unconditional admission without the need for review by the Departmental Admission and Petition Committee if they meet any one of the following four sets of unconditional admission criteria:

#### **Unconditional Admission Set #1: GPA/GMAT Condition**

Individuals who meet each of the following five conditions are given unconditional admission:

- GPA on last 60 hours of undergraduate work is at least 3.0;
- GMAT total score is at least 550;
- GMAT verbal score at the 40th percentile or higher;
- GMAT quantitative score at the 40th percentile or higher; and
- Applicant holds an earned bachelor's degree from an accredited college or university.

#### **Unconditional Admission Set #2: GMAT Waiver Condition**

This unconditional admission set #2 focuses on the applicant's performance in UTA's undergraduate accounting program. Individuals who meet all of the following seven conditions are given unconditional admission.

- Graduated from UTA (with a bachelor's degree) within three years of expected entrance into the graduate program;
- Completed at least 60 semester hours at UTA;
- Majored in accounting at UTA;
- Has a 3.25 overall GPA at UTA;
- Has a 3.25 accounting GPA at UTA;
- Has a 3.25 GPA in all advanced work at UTA; and
- Has a 3.25 GPA in the last 60 semester hours completed at UTA.

Applicants may receive provisional admission under this set if they have not yet completed their last undergraduate semester at UTA. The provision is removed when they are awarded their undergraduate degree.

Applicants should be aware that this waiver applies for admission only to the Department's graduate programs. Other UTA graduate programs (such as the College of Business' MBA program) may require submission of a GMAT score before admission or transfer into their program. The Department will not accept GMAT waivers given to students in other graduate programs unless the student meets all the requirements specified above.

#### **Unconditional Admission Set #3: Professional Credential Condition**

This unconditional admission set # 3 focuses on the applicant's undergraduate grade point average and possession of a recognized professional accounting credential or license. Individuals who meet each of the following four (4) conditions are given unconditional admission.

- Graduated from an accredited college or university with an earned bachelor's degree;
- Has an overall undergraduate GPA of at least 3.0;
- Has an overall undergraduate major GPA of at least 3.0; and
- Holds a current and recognized professional accounting credential or license, including but not limited to:
  - Certified Public Accountant,
  - Certified Management Accountant,
  - Certified Internal Auditor,
  - Certified Financial Analyst,
  - Certified Fraud Examiner,
  - Chartered Accountant, or

- Certified Valuation Analyst.

#### **Unconditional Admission Set 4: Successful Postbaccalaureate Education Condition**

This unconditional admission set #4 focuses on the applicant's previous successful completion of a postbaccalaureate degree with an acceptable graduate grade point average. Individuals who meet each of the following three conditions are given unconditional admission.

- Graduated from an AACSB accredited college or university with a postbaccalaureate degree (e.g., master's degree, JD degree, LLM degree, MD degree, Ph.D. degree);
- Has an overall graduate GPA of at least 3.0; and
- Has a graduate GPA of at least 3.0 in the major area.

#### **Admission with Committee Review**

Applicants who require committee review are considered for admission using the following factors, with no single factor used as the primary criterion for making admission decisions.

- Undergraduate and graduate GPA (overall, major, and last 60 hours) and program accreditation status of the applicant's degree granting institution;
- Score on the GMAT (including separate scores on the verbal and quantitative portions);
- Applicant's professional work experience and professional certification/licensure; and
- Letters of reference and personal statement provided by the applicant.

To qualify for unconditional admission with committee review, applicants must hold an earned bachelor's degree from an accredited college or university and are expected to show significant strength in at least three of the four areas listed above. The Admission and Petition Committee may also grant probationary admission to applicants who demonstrate significant strength in at least two of the four areas listed above.

By considering the totality of the applicant's circumstances, including the factors listed above, the Admission and Petition Committee will evaluate an applicant's readiness to successfully complete one of the Department's graduate programs. Depending on the judgment of the committee, the decision may be to grant unconditional admission, probationary admission, provisional admission, deferred admission, or to deny admission. The decision of the committee is final.

International applicants must submit a score of at least 550 on the paper-based TOEFL, a score of at least 213 on the computer-based TOEFL, a minimum of 40 on the TSE, a minimum of 6.5 on the IELTS, or a minimum TOEFL iBT total score of 79 with sectional scores that meet or exceed 22 for the writing section, 21 for the speaking section, 20 for the reading section, and 16 for the listening section to meet this requirement. International applicants who score below the minimums above may be admitted with the condition that they pass an English proficiency examination or complete UTA's Graduate English Skills Program prior to beginning graduate coursework. However, the TOEFL score requirement is waived if the applicant holds either a bachelor's or a master's degree from an AACSB accredited US college or university.

#### **Professional Program in Accounting**

The Department of Accounting offers a Professional Program in Accounting (PPIA) that allows students to earn both a bachelor's degree and master's degree upon completion of an integrated 152-hour program. This integrated program can be completed in approximately one less semester than required to earn separate bachelor's and master's degrees. Students completing this program will have earned sufficient hours to sit for the CPA exam.

#### **PPIA Admission Requirements**

The Department of Accounting's (the department) admission criteria for its PPIA program have been developed to conform to State of Texas requirements and are based on the general admission requirements of the Graduate School. Applicants are encouraged to include a resume that highlights professional and personal accomplishments with their application.

All applications for admission to the PPIA program are reviewed individually. Admission decisions are based on factors associated with academic success in graduate study and may include any of the following criteria: (1) undergraduate grade point average, (2) performance in accounting classes at UTA, (3) GMAT scores, (4) professional work experience, (5) personal accomplishments, (6) letters of reference, and (7) the applicant's personal statement. Standardized test scores are not used as the sole criterion for admitting applicants or denying admission to applicants.

### **Admission Criteria**

The Department has two alternative sets of conditions that allow applicants to be unconditionally admitted to the PPIA program without review by the Departmental Admission and Petition Committee. The Departmental Graduate Advisor reviews all applications and determines if they qualify for admission under one of these two sets of criteria. Applicants who do not satisfy any of the following sets of conditions for unconditional admission are referred to the Departmental Admission and Petition Committee for consideration.

#### **Option #1: Unconditional Admission without Committee Review**

Individuals who meet each of the following eight conditions are given unconditional admission:

- Overall undergraduate GPA is at least 3.0;
- UTA undergraduate GPA is at least 3.0;
- UTA accounting GPA is at least 3.0;
- Have completed at least 9 semester hours of accounting study (beyond principles) at UTA;
- Have completed at least 45 semester hours of coursework at UTA;
- GMAT total score is at least 550;
- GMAT verbal score at the 40th percentile or higher; and
- GMAT quantitative score at the 40th percentile or higher.

#### **Option #2: Unconditional Admission with GMAT Waiver**

This unconditional admission option #2 focuses on the applicant's performance in UTA's undergraduate accounting program. Individuals who meet all of the following six conditions are given unconditional admission.

- Majoring in accounting at UTA;
- Have completed at least 9 semester hours of accounting study (beyond principles) at UTA;
- Overall undergraduate GPA is at least 3.25;
- UTA accounting GPA is at least 3.25;
- Have completed a minimum of 60 semester hours at UTA;
- Have a GPA of at least 3.25 for the most recent 60 semester hours of courses completed at UTA.

### **Admission with Committee Review**

PPIA applicants who require Committee review are considered for admission using the following factors, with no single factor used as the primary criterion for making admission decisions.

- Undergraduate GPA (overall, UTA undergraduate) and performance in accounting courses at UTA;
- Score on the GMAT (including separate scores on the verbal and quantitative sections);
- Applicant's professional work experience and personal accomplishments;
- Letters of reference and personal statement provided by the applicant.

Unconditional admission is granted to applicants whose documentation clearly demonstrates a readiness for graduate study. By considering the totality of the applicant's circumstances, including the factors listed above, the Admission and Petition Committee will evaluate an applicant's readiness to successfully complete one of the Department's graduate programs. To qualify for

unconditional admission with committee review, applicants are expected to show significant strength in at least three of the four areas listed above. An applicant unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements may be granted provisional admission. Provisional status lasts through the initial semester of admission. Applicants whose documentation does not satisfactorily demonstrate readiness for graduate study may be denied admission. A deferred decision may be granted when a file is incomplete or when a denied decision is not appropriate. The decision of the Committee is final.

## Public Administration Master's Program

### Summary of proposed changes:

Will waive GRE requirement if applicant meets any of the following conditions:

1. A 3.25 or higher undergraduate GPA based on the last 60 hours of course work AND at least three years professional non-profit or public service work experience (as judged by the MPA admission committee.)
2. A completed graduate degree from an accredited program in a related field such as, but not exclusively, political science, economics, urban planning, social work, criminal justice, and sociology OR a 3.0 higher after 12 hours of coursework in the accredited graduate degree program.
3. A commensurate UTA B.A. or B.S., completed no more than three academic years prior to admission to the graduate program, with 3.0 or higher GPA in the last 60 hours of coursework. Commensurate fields include, but not exclusively, political science, economics, urban planning, social work, criminal justice, and sociology.
4. An equivalent GMAT or LSAT score from an exam taken within the last two years preceding the time of application. As the GMAT and LSAT are not directly comparable to the GRE, an equivalent performance is judged by the admission committee but will usually be based on percentile rank performance.

### Proposed Text Describing GRE Waiver

#### Waiving the GRE

The MPA program waives the requirement that an applicant take the GRE under any of the following conditions:

1. A 3.25 or higher undergraduate GPA based on the last 60 hours of course work AND at least three years professional non-profit or public service work experience (as judged by the MPA admission committee.)
2. A completed graduate degree from an accredited program in a related field such as, but not exclusively, political science, economics, urban planning, social work, criminal justice, and sociology OR a 3.0 higher after 12 hours of coursework in the accredited graduate degree program.
3. A commensurate UTA B.A. or B.S., completed no more than three academic years prior to admission to the graduate program, with 3.0 or higher GPA in the last 60 hours of coursework. Commensurate fields include, but not exclusively, political science, economics, urban planning, social work, criminal justice, and sociology.
4. An equivalent GMAT or LSAT score from an exam taken within the last two years preceding the time of application. As the GMAT and LSAT are not directly comparable to the GRE, an equivalent performance is judged by the admission committee but will usually be based on percentile rank performance.

## Urban Planning and Public Policy Ph.D. Program

### Summary of proposed changes:

- Add emphasis on “flexible use” use of GRE scores in admission decisions, emphasizing that the importance of evidence of verbal or quantitative skills will vary with the applicant’s intended area of study.
- Propose to waive GRE requirement for students with Master’s degrees who have been employed in positions where work-related responsibilities increased over time.
- Includes description of University minimum standardized test requirements for demonstrating proficiency in English.
- Eliminate one path to admission where higher GPA offset lower performance on the GRE Verbal subtest.

## Proposed Admission Criteria

### Application Requirements and Deadlines

Along with the Graduate School application requirements, a complete application includes:

1. Official transcripts from colleges and universities attended. Information about submitting transcripts is available in the Graduate Catalog; and
2. Official test score reports for the Graduate Record Exam (GRE) and, for international applicants, the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about submitting official test scores is available from the Graduate Catalog. The ETS code for UTA is 6013; and
3. Three Letters of Recommendation. Letters should attest to the applicant’s ability to do Doctoral-level work and complete the dissertation. Letters must be from references who hold a Ph.D. degree; and
4. Essay by applicant approximately one double-spaced page in length (approximately 250 words). The essay is considered both for its content and writing quality. The essay should discuss research agenda, identify the faculty you wish to work with, and state the reasons for wanting to earn the Doctoral degree.

Official transcripts and test scores must be sent directly to the Graduate School by the institution and ETS respectively. Letters of recommendation and personal essay should be sent directly to: UPPP Admissions Committee, SUPA Box 19588, Arlington TX 76019 or email to the program’s Graduate Advisor. It is the applicant’s responsibility to ensure all application materials are received by February 1. Incomplete applications or applications received after the deadline will be deferred.

UPPP program admits doctoral students for fall and spring semester admissions. The application deadline for the UPPP program is February 1 for Fall semester and July 1 for Spring semester.

Applicants may be typically admitted unconditionally with a graduate GPA of 3.6, a Verbal GRE score of at least 153 (500 if test was taken before August 1, 2011) and a Quantitative GRE score of at least 144 (500 if test was taken before August 1, 2011). GRE requirements are applied flexibly as different areas of study vary in the relative importance of quantitative and verbal analysis. Applicants should contact the Graduate Advisor if uncertain whether their area of primary interest requires more strength in either quantitative or verbal analysis. Applicants with an interest in areas with quantitative emphasis typically meet the minimum Quantitative GRE score requirement, but may be admitted with a lower than typical GRE Verbal score. Applicants pursuing study in less quantitative but more verbally analytic areas typically meet the GRE Verbal score minimum, but may be admitted with lower than typical GRE Quantitative scores. However, in no case will standardized test performance be the sole or primary determinant of admissibility. Strength of letters of recommendation, and quality of personal statement and Master’s degree field of study are also considered carefully. U.S. students with a Master’s degree from an accredited U.S. institution and several years of increasing responsibilities on the job are not required to submit GRE scores. International applicants are also required to have a score of 213 or higher on the TOEFL (550 or higher on the written TOEFL; 79 or higher on TOEFL iBT).

Applicants not admitted unconditionally may be considered for admission on probation based on factors mentioned above as well as multilingual proficiency, first generation graduate student from family and community service experience. The Doctoral admissions committee will set the



probationary conditions.

The admissions committee may defer the admission decision when a component of the application is incomplete. It may also admit a student provisionally when an applicant is unable to supply all required documentation prior to the admission deadline but who otherwise appears to meet admission requirements.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- [Home](#)
- [Degree Requirements](#)
- [Fields of Study](#)
- [Admissions Requirements & Procedures](#)
- [General Information & Regulations](#)
- [Board of Regents](#)
- [Graduate School](#)
- [Directory of UT Arlington Offices](#)
- [Regulations](#)
- [Tuition & Fees](#)
- [Financial Aid](#)
- [Student Services](#)
- [Graduate Calendar](#)
- [Graduate Faculty](#)
- [Table of Contents](#)
- [Index](#)

## General Information & Regulations

The University of Texas at Arlington

### University Officers

- [Executive Officers](#)
- [Administrative Officers of Academic Units](#)
- [Graduate School Officers](#)

### University Profile

### Mission Statement

### Accreditation

### Government

### Equal Opportunity Policy

### Sexual Harassment, Sexual Misconduct and Consensual Relationships Policy

### UT Arlington/Fort Worth Center

### Center for Distance Education

## University Officers

### Executive Officers

Dr. Vistasp M. Karbhari, President  
Ronald L. Eisenbaumer, Ph.D., Provost and Vice President for Academic Affairs  
Carolyn L. Cason, Ph.D., Interim Vice President for Research and Federal Relations  
John D. Hall, B.B.A., Vice President for Administration and Campus Operations  
Jean M. Hood, B.S., Vice President for Human Resources  
Frank Lamas, Ph.D., Vice President for Student Affairs  
James C. Lewis, M.B.A., Vice President for Development  
Jerry Lewis, B.S., Vice President for Communications  
Maurice Leatherbury, Ph.D., Vice President for Information Technology  
Kelly Davis, B.B.A., Vice President for Business Affairs and Controller

### Administrative Officers of Academic Units

Barbara Becker, Ph.D., Dean, School of Urban and Public Affairs  
Jean-Pierre Bardet, Ph.D., Dean, College of Engineering  
Philip Cohen, Ph.D., Dean of Graduate Studies  
Donald F. Gatzke, M.Arch., Dean, School of Architecture  
Jeanne Gerlach, Ph.D., Ed.D., Dean, College of Education  
Daniel D. Himarios, Ph.D., Dean, College of Business



Pamela Jansma, Ph.D., Dean, College of Science  
Michael Moore, Ph.D., Senior Vice Provost and Dean, Undergraduate Studies  
Karl Petruso, Ph.D., Dean, Honors College  
Scott D. Ryan, Ph.D., Dean, School of Social Work  
Elizabeth Poster, Ph.D., Dean, School of Nursing  
Rebeccal Bichel, M.L.I.S., Dean, Library  
Beth S. Wright, Ph.D., Dean, College of Liberal Arts

### Graduate School Officers

Raymond L. Jackson, Ph.D., Graduate Studies

## University Profile

The University of Texas at Arlington is located in the heart of the Dallas/Fort Worth Metroplex, one of the fastest growing areas in the nation. UT Arlington is a Carnegie doctoral-extensive teaching, research and public service university offering an array of baccalaureate, master's, doctoral and professional degrees. A modern 392-acre campus a few blocks from downtown Arlington offers easy access to museums, concerts, ballet, theater, family recreation, professional sports and other amenities.

Founded in 1895 as Arlington College, a private liberal arts institution, UT Arlington has undergone a succession of names, ownerships and missions. The University was elevated to senior college status in 1959 and was transferred from the Texas A&M System to The University of Texas System in 1965. Its final name change came in 1967, when it became The University of Texas at Arlington.

The University of Texas at Arlington has an enrollment of about 34,000 students. The student body is diverse with students representing almost every state in the United States and more than 100 countries. The University's academic units include the School of Architecture, College of Business, College of Education and Health Professions, College of Engineering, Honors College, College of Liberal Arts, College of Nursing, College of Science, School of Social Work, and School of Urban and Public Affairs. Additionally, the Graduate School oversees the administration of academic programs beyond the baccalaureate level.

In response to societal needs, UT Arlington has evolved into a renowned university within the state and one of emerging position nationally and internationally. The University's history of achievement can be attributed to its outstanding faculty; a strong student body; a record of success by graduates in their respective fields; and the growth of the Dallas/Fort Worth area as a nationally and internationally significant metropolis.

## Mission Statement

The University of Texas at Arlington is a comprehensive research, teaching, and public service institution whose mission is the advancement of knowledge and the pursuit of excellence. The University is committed to the promotion of lifelong learning through its academic and continuing education programs and to the formation of good citizenship through its community service learning programs. The diverse student body shares a wide range of cultural values and the University community fosters unity of purpose and cultivates mutual respect.

As a University, we affirm our commitment to the following objectives:

- The University is committed to comprehensive programs of academic research. This research effort requires attracting and retaining scholars who promote a culture of intellectual curiosity, rigorous inquiry, and high academic standards among their fellow faculty and the students they teach.
- The University prepares students for full, productive lives and informed and active citizenship. To that end, we have developed undergraduate and graduate curricula and classroom practices that engage students actively in the learning process. Outside the classroom a wide range of student organizations and activities contribute to the learning environment. Our service learning program offers students the opportunity to supplement

their academic study with internships in a variety of community settings, testing their skills and aptitudes and challenging their values. State-of-the-art teaching technologies, distance education, and off-site instruction afford access to off-campus as well as traditional students. Non-degree certificate and continuing education programs offer practical, aesthetic, and intellectually stimulating opportunities for community learners, for individual courses or a sustained program of study.

- The mission of a university can be achieved only when its students, faculty, staff, and administrators value and promote free expression in an atmosphere of tolerance, responsibility, and trust. The University regards these attributes as prerequisites for any community of learners and vigilantly strives to maintain them.
- Mindful of its role as a resource to the community, locally, nationally, and internationally, the University continually seeks partnerships with public and private concerns in order to advance the economic, social, and cultural welfare of its constituencies. We serve the needs of the North Texas community by sponsoring public lectures and academic symposia, as well as artistic, musical, and dramatic productions.

## Accreditation

The University of Texas at Arlington is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, master's and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation status of The University of Texas at Arlington.

In addition, many of UT Arlington's academic departments and schools have received national accreditation from specific agencies. These accreditations are detailed under the individual listings for departments and schools in this catalog.

Since 1993, students and faculty of The University of Texas at Arlington have benefited from its membership in Oak Ridge Associated Universities. ORAU is a consortium of 98 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of under-represented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at [www.ornl.gov/orise/educ.htm](http://www.ornl.gov/orise/educ.htm), or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.

For more information about ORAU and its programs, contact:

Ronald L. Elsenbaumer  
Vice President for Research  
ORAU Councilor for The University of Texas at Arlington

Monnie E. Champion

ORAU Corporate Secretary (865.576.3306); or  
Visit the ORAU home page ([www.orau.org](http://www.orau.org))

## Government

The government of UT Arlington is vested in a nine-member Board of Regents of The University of Texas System, nominated by the governor and approved by the Senate. The Office of the Chancellor is the chief administrative office of The University of Texas System and is located in Austin. The chief administrative officer of UT Arlington is the University president, under authority of the Office of the Chancellor of the UT System and the Board of Regents. A complete statement of the authority and duties of the Regents and of the several officers, together with an account of the organization of the system, is published in the Rules and Regulations of the Board of Regents of The University of Texas System.

## Equal Opportunity Policy

The University of Texas at Arlington complies with the Equal Pay Act of 1963, Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246, the Age Discrimination in Employment Act of 1967, Title IX of the Educational Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, 1990, the Vietnam Era Veterans Readjustment Act of 1974, the Texas Commission on Human Rights Act and the Rules and Regulations of the Board of Regents of The University of Texas System. It is the policy of The University of Texas at Arlington that to the extent provided by these applicable laws no person shall, on the basis of race, color, national origin, religion, age, sex, disabilities or veteran status, be denied employment or admission, be excluded from participation in, be denied the benefits of or subject to discrimination under, any program or activity that it sponsors or conducts. It is also the University's policy to maintain an environment free from discrimination on the basis of sexual orientation.

Inquiries concerning the application of this policy and complaints of discrimination should be directed to the Office of Equal Opportunity and Affirmative Action, 710 S. Davis Drive, Office and Classroom Building (OCB), Room 103, 817.272.2106. E-mail: [eoaa@uta.edu](mailto:eoaa@uta.edu). Web site: [www.uta.edu/eoaa](http://www.uta.edu/eoaa).

## Sexual Harassment, Sexual Misconduct and Consensual Relationships Policy

The University of Texas at Arlington is committed to an academic and working environment free from inappropriate conduct of a sexual nature. Sexual harassment is a prohibited practice under Title VII of the Civil Rights Act of 1964 for employees as amended by the Equal Employment Opportunity Act of 1973, and the Texas Commission on Human Rights Act for students under Title IX of the Education Amendments of 1972. Sexual harassment, sexual misconduct and consensual relationships between faculty members and the students they currently teach or supervise, and between employees in positions of authority and their subordinates, are prohibited under University policy and are sanctionable.

Sexual harassment includes, but is not limited to, unwelcome sexual advances, requests for sexual favors, insults, sexual threats, innuendoes and other verbal or physical conduct of a sexual nature under circumstances where: 1) submission to such conduct is made either explicitly or implicitly a term or condition of employment (or a student's status in a course, program or activity); 2) submission to or rejection of such conduct by an employee is used as a basis for employment decisions affecting the individual (or in the case of a student, it is used as a basis for academic or other decisions affecting a student); or 3) such conduct has the purpose or effect of unreasonably interfering with the individual's employment (or the student's educational experience), or of creating an intimidating, hostile or offensive academic environment.

Inquiries concerning the application of this policy and complaints of sexual harassment should be directed to the Office of Equal Opportunity and Affirmative Action, 710 S. Davis Drive, Office and Classroom Building (OCB), Room 103, 817.272.2106. Email: [eoaa@uta.edu](mailto:eoaa@uta.edu). For policy and additional information visit Web site: [www.uta.edu/eoaa](http://www.uta.edu/eoaa).

## UT Arlington/Fort Worth Center

UT Arlington/Fort Worth Center strives to serve the Fort Worth community with excellence in accessible, state-of-the-art, and affordable higher education. The Fort Worth Center is committed to:

- meeting the lifelong learning needs of working professionals
- offering graduate programs in convenient times and formats including evenings and weekends
- having the vision and flexibility to capitalize on global opportunities that address the economic development needs of the community
- UT Arlington/Fort Worth Center offers master degree programs tailored for working adults. The Executive MBA cohort program is designed for upper-level executives and can be completed in 15 months. The cohort-based MBA program starts every fall and spring semester and takes 24 months to complete. The cohort-based Master of Science in Healthcare Administration spans 24 months. The Scholars of Practice (M.Ed.) program is uniquely designed for graduate students seeking their Master of Education degree with Texas principal certification. This field-based administrator preparation experience spans five consecutive university semesters over an 18-month period. The Master of Science in Systems Engineering is a 36-hour program offered by the College of Engineering that consists of classroom and online instruction. The program takes 24 months to complete. The Master of Science in Information Systems provides managers of various functional business areas the necessary knowledge to effectively interface with the Information Technology organization and can be completed in just 17 months. The School of Urban and Public Affairs offers a Master of Public Administration cohort at the Fort Worth Center. The degree can be completed in 24 months and is focused on Urban Management. The Master of Arts in Criminology and Criminal Justice cohort program at the Center can be completed in 24 months. The Master of Science in Social Work is now being offered at the Fort Worth Center, which can be completed in 24 months. The Master of Science in Real Estate program accepts students every semester and can be completed in as little as one year. A sustainability concentration is offered in the MS in Real Estate program and is available in Dallas and Fort Worth. These UT Arlington/Fort Worth Center graduate programs are the highest quality and most affordable of their kind in the Tarrant County region.
- In addition, UT Arlington/Fort Worth Center provides select non-credit professional development and continuing education courses in downtown Fort Worth. The Center's Gallery 76102 is a community art space exhibiting contemporary work from local artists. Since its opening it has become an integral part of the Fort Worth art community.
- UT Arlington/Fort Worth Center has an excellent central location in downtown Fort Worth at 1401 Jones Street, Fort Worth, Texas 76102. Please access the UT Arlington/Fort Worth Center's Web site, [www.uta.edu/fortworth](http://www.uta.edu/fortworth), for more information. The main information phone number is 817.272.5988.

### Center for Distance Education

The Center for Distance Education serves as an information and coordination site for distributed education efforts at UT Arlington. University undergraduate and graduate courses and degree programs are delivered off-campus in numerous electronic formats, including videotape/DVD, videoconferencing and via the Internet. Center staff promote and support the use of both established and emerging digital tools for teaching and learning.

For more information on the Center for Distance Education, located at 201A E. Abram St., call 817.272.5727 or 888-UTA-DIST. Fax: 817-272-5728. E-mail: [info@distance.uta.edu](mailto:info@distance.uta.edu). Web site: <http://distance.uta.edu>.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
- Admissions Requirements & Procedures
- General Information & Regulations
  - Board of Regents**
  - Graduate School
  - Directory of UT Arlington Offices
  - Regulations
  - Tuition & Fees
  - Financial Aid
  - Student Services
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Board of Regents

### Officers

Wm. Eugene "Gene" Powell, Chairman  
Paul L. Foster, Vice Chairman  
R. Steven "Steve" Hicks, Vice Chairman  
James D. Dannenbaum, Vice Chairman  
Francie A. Frederick, General Counsel

### Members

#### Term Expiring February 1st, 2015

R. Steven "Steve" Hicks, Austin  
Wm. Eugene "Gene" Powell, San Antonio  
Robert L. Stillwell, Houston

#### Term Expiring February 1st, 2017

Alex M. Cranberg, Austin  
Wallace L. Hall, Jr., Dallas  
Brenda Pejovich, Dallas

### Student Regent

Ashley M. Purgason

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
- Admissions Requirements & Procedures
- General Information & Regulations
- Board of Regents
- Graduate School
- Directory of UT Arlington Offices
- Regulations
- Tuition & Fees
- Financial Aid
- Student Services
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Graduate School

- [Mission and Philosophy](#)
- [History and Overview](#)
- [Office of Graduate Studies Website](#)

### Mission and Philosophy

The Graduate School is administratively located in the Office of Graduate Studies.

The goal of graduate study is the development of a student's ability for creative research, critical evaluation and scholarship in a particular discipline or in interrelated disciplines. Graduate study actively involves students in research, and by sharing in investigations with their professors, graduate students acquire the spirit as well as methods of creative scholarship. Achievement of the goal is demonstrated by preparation of reports, theses and dissertations. In practice-oriented and teaching-oriented graduate programs, emphasis is on preparation for careers in application of existing knowledge in professional practice and teaching.

### History and Overview

The Graduate School is the focus of advanced studies and research in the University. A graduate faculty of more than 400 makes the Graduate School an important influence in creating high standards for academic accomplishment and in achieving an intellectual environment of the highest quality for the University community.

The Graduate School of The University of Texas at Arlington was established in 1966 with the initiation of six master's degree programs. Doctoral degree programs were added in 1969 with a Ph.D. in engineering. Today the University offers master's degrees in 74 disciplines or interdisciplinary programs and 30 doctoral degree programs.

### Office of Graduate Studies Website

Students and applicants are encouraged to visit the Office of Graduate Studies website at <http://grad.uta.edu> to locate important information about graduate programs and the admissions process. The website is organized into user groups that link students with all the important Web resources on campus.

1. The [Prospective Students](#) section located in this website lists admission and application information as well as application forms.
2. Many people considering graduate study at The University of Texas at Arlington visit our campus to attend a [Graduate Forum](#). This provides an opportunity to evaluate programs in detail and meet graduate advisors and faculty. Information about these events and a convenient reservation system are provided on the website through the Graduate Forums section.
3. Newly admitted students are encouraged to visit this website and complete a [Virtual Tour](#) that quickly familiarizes them with advising, registration and vital campus support.
4. Newly admitted and currently enrolled students can obtain information on Graduate

School rules and procedures, and obtain forms needed by current graduate students through the **Forms for Students** section.

Published in June of 2013. This catalog supersedes the **2012-2013 Graduate Catalog**.

The University of Texas at Arlington **Graduate Studies**  
Box 19167, Arlington, Texas 76019, USA | Phone **817.272.2688** | Fax 817.272.1494  
©2013 **The University of Texas at Arlington**





# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
- Admissions Requirements & Procedures
- General Information & Regulations
- Board of Regents
- Graduate School
- Directory of UT Arlington Offices
- Regulations
- Tuition & Fees
- Financial Aid
- Student Services
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Directory of UT Arlington Offices

Graduate Studies				
Office	Location	Email	Phone	Fax
<a href="#">Graduate Admissions</a>	Davis Hall Room 333	<a href="mailto:graduate.school@uta.edu">graduate.school@uta.edu</a>	817.272.2688	817.272.2627 *
<a href="#">Graduate Studies</a>	Davis Hall Room 333	<a href="mailto:graduate.school@uta.edu">graduate.school@uta.edu</a>	817.272.2688	817.272.1494 *

\* Unfortunately, we cannot accept application materials via fax.

University Offices				
Office	Location	Email	Phone	Fax
<a href="#">Career Services</a>	Davis Hall Room 216	<a href="mailto:careers@uta.edu">careers@uta.edu</a>	817.272.2932	817.272.5792
<a href="#">Counseling Services</a>	Ransom Hall Room 305		817.272.3671	817.272.5523
<a href="#">Financial Aid &amp; Scholarships</a>	Davis Hall Room 252	<a href="mailto:fao@uta.edu">fao@uta.edu</a>	817.272.3561	817.272.3555
<a href="#">Health Services</a>	605 S West St	<a href="mailto:healthservices@uta.edu">healthservices@uta.edu</a>	817.272.2771	817.272.3829
<a href="#">Housing</a>	University Center Room 150	<a href="mailto:housing@uta.edu">housing@uta.edu</a>	817.272.2791	817.272.2717
<a href="#">International Education</a>	Swift Center 1022 UTA Blvd	<a href="mailto:international@uta.edu">international@uta.edu</a>	817.272.2355	817.272.5005
<a href="#">Office for Students with Disabilities</a>	University Hall Room 102	<a href="mailto:osd@uta.edu">osd@uta.edu</a>	817.272.3364 800.RELAY.TX (TDD)	817.272.1447
<a href="#">Multicultural Affairs</a>	University Center Room B150	<a href="mailto:multicultural@uta.edu">multicultural@uta.edu</a>	817.272.2099	817.272.3722
<a href="#">TRiO Student Support Services</a>	Ransom Hall Room 206		817.272.3684	817.272.3770
<a href="#">Student Conduct</a>	University Center Room B160		817.272.2354	817.272.5221
<a href="#">Student Legal Services</a>	Davis Hall Room 216		817.272.3771	817.272.5221
<a href="#">Testing Services</a>	Davis Hall Room 201	<a href="mailto:testing@uta.edu">testing@uta.edu</a>	817.272.2362	817.272.7532
<a href="#">Records and Registration</a>	Davis Hall Room 129	<a href="mailto:records@uta.edu">records@uta.edu</a>	817.272.3372	817.272.3223
<a href="#">Veterans Benefits</a>	Davis Hall Room 252	<a href="mailto:va@uta.edu">va@uta.edu</a>	817.272.3373	817.272.7013

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](tel:817.272.2688) | Fax [817.272.1494](tel:817.272.1494)  
 ©2013 The University of Texas at Arlington



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Board of Regents](#)[Graduate School](#)[Directory of UT Arlington Offices](#)[Regulations](#)[Tuition & Fees](#)[Financial Aid](#)[Student Services](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Regulations

### Student Responsibility

### Academic Dishonesty

### Student Conduct and Discipline

### Hazing

- [Campus Solicitations](#)
- [Use of Campus Facilities](#)
- [Vehicle Emissions Inspections](#)
- [Student Travel Policy](#)
- [University Authorized Absences](#)

### Security

- [Gang-Free Zones](#)
- [Student Right-to-Know and Campus Security Act](#)

### Student Educational Records Policy

- [Public Access to Theses and Dissertations](#)

### Attendance, Absences and Observance of Religious Holy Days

- [Attendance](#)
- [Excused Absences](#)

### Administration of the Advanced Degree Programs

- [Committees on Graduate Studies](#)
- [Graduate Advisors](#)

### Grades

- [Grades of I, R and W](#)
- [Grades awarded in research or internship courses \(P, R, F or W\)](#)
- [Grades awarded in three-hour thesis and three- and six-hour dissertation courses \(R, F or W\)](#)
- [Grades awarded in six-hour thesis and nine-hour dissertation courses \(P, R, F or W\)](#)

### Credit Toward Degrees and Certificates

- [Credit for Repeated Courses](#)
- [Course Credit Applied to More Than One Degree](#)
- [Credit for Advanced Undergraduate Coursework](#)
- [Transfer Credit and Course Waivers](#)

- **Earning Graduate Course Credit as a UT Arlington Undergraduate Student**
- **Students Holding Bachelor or Higher Degrees Enrolled as Degreed Undergraduates**
- **Courses That Do Not Provide Graduate Credit**

#### **Academic Standing**

- **Good Standing and Satisfactory Scholastic Progress**
- **Academic Probation**
- **Dismissal**

#### **Grievances**

- **Grievances Related to Grades**
- **Grievances Other Than Grades**
- **Grievances Related to Discrimination or Sexual Harassment**

#### **Registration and Enrollment Requirements**

- **Scheduling Classes**
- **Payment of Fees**
- **Late Registration**
- **Registration and Orientation Requirements for International Students**
- **Course Load (Credit Hour) Requirements**
- **Adding, Dropping and Auditing Courses**

#### **Leave of Absence Policy**

#### **Withdrawal (Resignation) from the University**

#### **Withdrawal as a Result of Military Service**

#### **Change of Graduate Major, Program or Degree Level**

#### **Graduation Requirements and Procedures**

- **Enrollment Requirements for Thesis and Dissertation Courses**
- **Final Semester Requirements**
- **Summary of Final Semester Requirements for Master's Degree Candidates**
- **Summary of Final Semester Requirements for Doctoral Candidates**

#### **Graduate School Deadlines**

#### **Graduate Assistantship/Associateship Policy**

- **Admission Status**
- **English Proficiency**
- **Developmental English Program**
- **Continuation or Renewal of Appointment**
- **Resident Tuition Rates**
- **Course Load**
- **Assignment of Duties**

#### **Additional Employment While an Assistant or Associate**

- **All Students**
- **U.S. Citizen Students**
- **International Students**

#### **Seeking Exceptions to Policies of the Graduate School**

## Course Designation System

### Student Responsibility

Graduate students assume full responsibility for knowledge of all Graduate School and University rules, regulations and deadlines published in the Graduate Catalog and of all departmental and program requirements concerning their degree programs.

### Academic Dishonesty

All students are expected to pursue their academic careers with honesty and integrity. Academic dishonesty includes, but is not limited to, cheating on a test or other coursework, plagiarism (offering the work of another as one's own) and unauthorized collaboration or file sharing with another person. Students found responsible for dishonesty in their academic pursuits are subject to penalties that may range from disciplinary probation, suspension or expulsion from the University. Unauthorized distribution of copyrighted material may subject students to civil and criminal penalties. Information concerning the legal consequences of such violations may be found in *Copyright Law of the United States of America and Related Laws Contained in Title 17 of the United States Code*, Circular 92 (<http://www.copyright.gov/title17/92chap5.html#504>)

In accordance with the Rules and Regulations of the Board of Regents of The University of Texas System (Rule 50101), institutional procedures regarding allegations of academic dishonesty are outlined in Part Two, Chapter 2, of the UT Arlington Handbook of Operating Procedures. This information may be obtained by accessing the Student affairs' Web site at [www.uta.edu/studentaffairs/](http://www.uta.edu/studentaffairs/) or the Student Judicial Affairs' Web site at [www.uta.edu/studentaffairs/judicialaffairs](http://www.uta.edu/studentaffairs/judicialaffairs). Copies of each regulation can be obtained in the Dean of Students' Office on the third floor of Davis Hall.

### Student Conduct and Discipline

The University of Texas at Arlington reserves the right to impose disciplinary penalties, including permanent expulsion, against a student for disciplinary reasons. Information about the rules of conduct and due process procedures is published in Rule 50101 of the *Rules and Regulations* of the Board of Regents of The University of Texas System. The Regents' *Rules and Regulations* may be accessed at <http://www.utsystem.edu/BOR/rules.htm>. This information is also published in the UT Arlington Handbook of Operating Procedures, available online at [www.uta.edu/policy](http://www.uta.edu/policy)

### Hazing

Hazing in state educational institutions is prohibited by both state law (Sections 51.936 & 37.151 et seq., *Texas Education Code*) and by the *Regents' Rules and Regulations* (Rule 50101). Individuals or organizations engaging in hazing could be subject to fines and charged with criminal offenses. Additionally, the law does not affect or in any way restrict the right of the University to enforce its own rules against hazing.

#### Individuals

A person commits an offense if the person:

1. engages in hazing;
2. solicits, encourages, directs, aids or attempts to aid another engaging in hazing;
3. recklessly permits hazing to occur; or
4. has firsthand knowledge of the planning of a specific hazing incident involving a student in an educational institution, or has firsthand knowledge that a specific hazing incident has occurred, and knowingly fails to report that knowledge in writing to the dean of students or other appropriate official of the institution.

#### Organizations

An organization commits an offense if the organization condones or encourages hazing or if an

officer or any combination of members, pledges, or alumni of the organization commits or assists in the commission of hazing.

### Definition

The term "hazing" is broadly defined by statute to mean any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in an organization. Hazing includes, but is not limited to:

- any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of a harmful substance on the body, or similar activity;
- any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subject the student to unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
- any activity involving the consumption of a food, liquid, alcoholic beverage, liquor, drug or other substance that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
- any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame or humiliation, that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to acts described in this subdivision; and
- any activity that induces, causes, or requires the student to perform a duty or task that involves a violation of the Penal Code.

The fact that a person consented to or acquiesced in a hazing activity is not a defense to prosecution.

The University of Texas System Board of Regents' *Rules and Regulations*, Rule 50101, Sec. 2.8 provides that, "Any student who, acting singly or in concert with others, engages in hazing is subject to discipline. Hazing in State educational institutions is prohibited by State law (*Texas Education Code*, Section 51.936). Hazing with or without the consent of a student whether on or off campus is prohibited, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. Initiations or activities of organizations may include no feature that is dangerous, harmful, or degrading to the student, and a violation of this prohibition renders both the organization and participating individuals subject to discipline."

Hazing with or without the consent of a student is prohibited by the System, and a violation of that prohibition renders both the person inflicting the hazing and the person submitting to the hazing subject to discipline. Initiations or activities by organizations may include no feature which is dangerous, harmful, or degrading to the student, and a violation of this prohibition renders both the organization and participating individuals subject to discipline. Activities which under certain conditions constitute acts that are dangerous, harmful, or degrading, in violation of Rules include but are not limited to: calisthenics, such as sit-ups, push-ups, or any other form of physical exercise; total or partial nudity at any time; the eating or ingestion of any unwanted substance; the wearing or carrying of any obscene or physically burdensome article; paddle swats, including the trading of swats; pushing, shoving, tackling, or any other physical contact; throwing oil, syrup, flour, or any harmful substance on a person; rat court, kangaroo court, or other individual interrogation; forced consumption of alcoholic beverages either by threats or peer pressure; lineups intended to demean or intimidate; transportation and abandonment (road trips, kidnaps, walks, rides, drops); confining individuals in an area that is uncomfortable or dangerous (hot box effect, high temperature, too small); any type of personal servitude that is demeaning or of personal benefit to the individual members; wearing of embarrassing or uncomfortable clothing; assigning pranks such as stealing; painting objects; harassing other organizations; intentionally messing up the house or room for clean up; demeaning names; yelling and screaming; and requiring boxing

matches or fights for entertainment.

### Immunity

In an effort to encourage reporting of hazing incidents, the law grants immunity from civil or criminal liability to any person who reports a specific hazing event in good faith and without malice to the dean of students or other appropriate official of the institution and immunizes that person for participation in any judicial proceeding resulting from that report. Additionally, a doctor or other medical practitioner who treats a student who may have been subjected to hazing **may** make a good faith report of the suspected hazing activities to police or other law enforcement officials and is immune from civil or other liability that might otherwise be imposed or incurred as a result of the report. The penalty for failure to report is a fine of up to \$1,000, up to 180 days in jail, or both. Penalties for other hazing offenses vary according to the severity of the injury which results and include fines from \$500 to \$10,000 and/or confinement for up to two years.

### Campus Solicitations

"Solicitation," as defined in Rule 80103 of the Rules and Regulations of the Board of Regents of The University of Texas System, means the sale, lease, rental or offer for sale, lease, rental of any property, product, merchandise, publication or service, whether for immediate or future delivery, an oral statement or the distribution or display of printed material, merchandise or products that is designed to encourage the purchase, use or rental of any property, product, merchandise, publication or service, the receipt of or request for any gift or contribution, or the request to support or oppose or to vote for or against a candidate, issue or proposition appearing on the ballot at any election held pursuant to state or federal law or local ordinances. All solicitations on the UT Arlington campus must conform to the Regents' Rules and Regulations, copies of which are available in the offices of the president, vice presidents, academic deans, numerous other administrative offices and the Central Library. The Regents' Rules and Regulations also may be accessed at the following Web site: [www.utsystem.edu/bor/rules.htm](http://www.utsystem.edu/bor/rules.htm).

### Use of Campus Facilities

The property, buildings or facilities owned or controlled by The University of Texas at Arlington are not open for assembly, speech or other activities as are the public streets, sidewalks and parks. No person, organization, group, association or corporation may use property, buildings or facilities owned or controlled by UT Arlington for any purpose other than in the course of the regular programs or activities related to the University's role and mission unless authorized by and conducted in compliance with the Rules and Regulations of the Board of Regents of The University of Texas System, approved rules and regulations of UT Arlington, and applicable federal, state and local laws and regulations.

### Vehicle Emissions Inspections

Vehicles parking or driving on campus must comply with vehicle emissions inspections standards pursuant to Subchapter F, Chapter 548 of the Texas Transportation Code and vehicle registration laws, and must display appropriate inspection stickers. Non-resident students, those who reside in another state and whose vehicle is registered in another state, while attending this University, will be required by the State of Texas to submit their vehicle for emissions inspection each year prior to receiving a parking permit. Vehicles not in compliance will be ticketed.

### Student Travel Policy

Before any student organization travels, it is beneficial to visit the Office of Student Governance and Organizations to receive information about liability and to consider using release forms that are available.

However, if the trip is funded by the University (including Program Assistance Funds), is more than 25 miles from the University, and the vehicle is owned or leased by the University, or if attendance is required by a student organization, then the organization must submit the Student/Group Travel Form and the University Request for Travel Authorization at least 10 days prior to the date of travel. All forms and additional information is available in the Office of Student Governance and



Organizations. For additional information, see the UT Arlington Handbook of Operating Procedures, Part II, Subchapter 6-600.

## University Authorized Absences

The Office of the Vice President for Student Affairs provides lists of students who have absences authorized by the University (e.g., participation in athletic events or scholastic activities that are officially-sponsored University functions these are primarily activities that are funded by the University). The student must contact the instructor one week in advance of the excused absence and arrange with the instructor to make up missed work or missed examinations. Instructors will provide those students an opportunity to make up the work or otherwise adjust the grading to ensure that the student is not penalized for the absence. Failure to notify the instructor or failure to comply with the arrangements to make up the work will void the excused absence.

## Security

### Gang-Free Zones

To promote campus safety and deter crime, premises owned, rented or leased by The University of Texas at Arlington, and areas within 1,000 feet of the premises are "gang-free" zones. Certain criminal offenses, including those involving gang-related crimes, will be enhanced to the next highest category of offense if committed in a gang-free zone by an individual 17 years or older. See Texas Penal Code, Section 71.028.

### Student Right-to-Know and Campus Security Act

In compliance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, formerly the Student Right-to-Know and Campus Security Act (P.L. 101-542, as amended), The University of Texas at Arlington publishes specified campus crime statistics and campus security policies through the Office of the Chief of the University Police.

Information on Campus safety and security policies may be found at [policy.uta.edu/index.php?navid=17492](http://policy.uta.edu/index.php?navid=17492) and [www.uta.edu/policy/documents/police/campus-safety-report.pdf](http://www.uta.edu/policy/documents/police/campus-safety-report.pdf). Additional information on policies and procedures pertaining to safety may be found at [www.uta.edu/policy/procedure](http://www.uta.edu/policy/procedure).

This information includes:

- Procedures for reporting criminal actions or other emergencies occurring on campus.
- Policies concerning security of and access to campus facilities, including campus residences; campus law enforcement authority and responsibilities.
- A description of programs designed to inform students and employees about the prevention of crimes, and campus security procedures.
- The policy of monitoring and recording of students' criminal activity occurring at off-campus locations of student organizations officially recognized by the institution.
- The policy regarding the possession, use and sale of alcoholic beverages and illegal drugs, and enforcement of federal and state drug and drinking laws.
- A description of drug or alcohol-abuse education programs.
- Sexual assault programs to prevent sex offenses, and procedures to follow when a sex offense occurs.
- Fire Safety and procedures Gang free zones and consequences of engaging in organized criminal activities in these zones
- Policy on emergency response and emergency notification procedures involving immediate threat and campus evacuation.
- Missing student information

Crime statistics may be accessed on the University Police Web site at [policy.uta.edu/index.php?navid=17496&resid=17826](http://policy.uta.edu/index.php?navid=17496&resid=17826).

## Student Educational Records Policy

Students may have access to their own educational records during regular office hours by contacting the person or the office that maintains these records. A student may appear in person or make a written request for a copy of the record to be mailed. Another person may not see a student's educational records unless the student gives written permission. One exception allows a parent or guardian who is providing one-half or more of the student's financial support to obtain the educational record. Faculty and staff members of the University have access to student educational records in performance of regular duties. If an educational record contains information on more than one student, then a student desiring access may review only parts pertaining to that student.

Students may have official copies of their UT Arlington transcripts mailed to other institutions or may obtain copies for their own use. A student must sign a request form in the Registrar's Office or mail a signed, written request to release the transcript. Transcripts also may be requested through the UT Arlington Web page at [www.uta.edu/transcripts](http://www.uta.edu/transcripts). Requests will not be accepted by telephone or from persons other than the student without that student's written permission.

The **Family Educational Rights and Privacy Act of 1974** provides that a university may release directory-type information about students. The information released may include the following items: the student's name, address, electronic mail address, telephone number, date of birth, major field of study, participation in officially recognized activities and sports, weight and height if a member of an athletic team, dates of attendance, degrees and awards received, and the last educational institution attended. Each year UT Arlington publishes a student directory that contains the student's name, major field of study and telephone number. The law states that a student has the right to withhold this information from the public and other students. Directory-type information may be withheld by editing your profile in MyMav. Unless this form is completed before the Census Date of the fall semester, this data will be released as public information.

Students have the right to challenge the content of their educational records to ensure that their records are not inaccurate, misleading or in violation of other rights of students. This allows students an opportunity to correct inaccurate or misleading information and permits written explanation concerning the content of the records. Any evidence regarding an inaccurate or misleading record should be presented to the individual in charge of the office where the record is maintained.

A more detailed statement of the records policy is available in the Office of the Senior Vice President for Finance and Administration, Room 300, Davis Hall.

### Public Access to Theses and Dissertations

Theses and dissertations completed by UT Arlington students are archived electronically with UMI/Proquest and in the Central Library. Thus, these documents are available to the interested public, unless the student's thesis or dissertation supervisor formally requests that public access be temporarily blocked for reasons such as pending patent applications, contractual restrictions, or other issues that would make immediate publication inappropriate or illegal. Public access to this information may be blocked for up to two years. Contact the Office of Graduate Studies Thesis and Dissertation Specialist for additional information.

## Attendance, Absences and Observance of Religious Holy Days

### Attendance

Regular attendance at all class meetings is expected. Instructors are responsible for implementing attendance policy and must notify students of any special attendance requirements. Special regulations of colleges and schools required by the unique nature of their programs of study may be enacted through the normal approval process. These special regulations may not conflict with University regulations on class attendance and absence. An instructor is under no obligation to accommodate students who are absent or miss work without prior notification and make-up arrangements.



Students will be allowed an excused absence under circumstances described below. The student must notify the instructor in writing at least one week in advance of the start of the excused absence and arrange with the instructor to make up missed work or missed examinations. Instructors will allow students an opportunity to make up the work and examinations within a reasonable time period following the absence or otherwise adjust the grading to ensure that the student is not penalized for the absence, provided that the student has properly notified the instructor.

Instructors are under no obligation to accommodate students who are absent or miss work without prior notification and make-up arrangements. Students who have properly notified the instructor, will not be penalized for the absence. However, the instructor may respond appropriately if the student fails to complete the assignment or examination satisfactorily within the time limit following the absence set by prior arrangement.

If there is disagreement between student and faculty member regarding what constitutes a reasonable amount of time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the Office of the Provost. The decision of the Provost is final.

## Excused Absences

### University Authorized Absences

The Office of the Vice President for Student Affairs provides lists of students who have absences authorized by the University (e.g., participation in athletic events or scholastic activities that are officially sponsored University functions-- those are primarily activities that are funded by the University).

### Absence for Military Service

In accordance with section 51.9111 of Texas Education Code, a student is excused for attending classes or engaging in other required activities, including examinations, if he or she is called to active military service of reasonably brief duration. The student will be allowed a reasonable amount of time after the absence to complete assignments and take examinations.

### Observance of Religious Holy Days

A student who misses an examination, work assignment or other project because of an observance of a religious holy day will be given the opportunity to complete the work missed within a reasonable time after the absence.

A "religious holy day" means a holy day by a religion whose places of worship are exempt from property taxation under Section 11.20 of the Tax Code. The period of the excused absence will include time for any travel needed to fulfill that religious obligation. If the instructor and the student disagree about whether an absence constitutes a "religious holy day" as defined above, either the student or the instructor may request a ruling from the Office of the Provost. The decision of the Provost is final.

## Administration of the Advanced Degree Programs

### Committees on Graduate Studies

Each graduate program is governed by a Committee on Graduate Studies. The committee is composed of all full members of the graduate faculty in that program. Graduate faculty from allied fields may serve on the committee, when appropriate. In an interdepartmental program, the Committee on Graduate Studies is appointed by the Dean of Graduate Studies.

### Graduate Advisors

Each graduate program has a Graduate Advisor. The Graduate Advisor represents the Dean of

Graduate Studies and the Committee on Graduate Studies in matters pertaining to advising graduate students in their academic areas. The Graduate Advisor's functions include clearing of students for registration, acting upon requests for drops, adds, section changes and special examinations; maintaining graduate student records; and advising graduate students about their degree plans. The name and contact information for each Graduate Advisor is listed at the beginning of each departmental or program description in this catalog.

## Grades

Types of grades that may be assigned in courses at the University of Texas at Arlington (Valid Grades) consist of A, B, C, D, F, P, I, R, and W. Instructors may only assign grades listed on the Grade Roster for a given course. Students uncertain about the grading policy in a course should consult their instructor at the beginning of the semester for information. Valid Grades for independent study, conference, seminar, and readings courses vary widely among departments; therefore, a statement on Valid Grades and special grading policies, if any, is given at the beginning of the course descriptions for each program in this catalog.

### Grades of I, R and W

**Grade of I:** The grade of I designates the grade of incomplete. A graduate student unable to complete all assigned work in a class in the semester in which it was taken may, at the discretion of the instructor, receive an I grade. *This grade is not given automatically* when a student does not complete all assigned work. It is the responsibility of the student to make arrangements with the instructor to secure a grade of I before the semester ends. The grade of I will remain as part of the student's academic record until the work is completed and a final grade awarded. To change a grade of I to another grade, the instructor must submit a change of grade form. A grade of I does not carry credit value. This grade is not awarded in research, internship, thesis or dissertation courses.

**Grade of R:** The grade of R designates the grade of research in progress and is given only in research, internship, thesis or dissertation courses. A graduate student unable to complete assignments in one of these courses may, at the discretion of the instructor, receive an R grade. The R grade is a permanent grade and does not carry credit value. To receive academic credit in an R-graded course, a student *must re-register for and successfully complete the course* earning a valid passing grade for the course. Grading policy in some courses may change during the period covered by this catalog. Grading policy for each course each semester is printed on the instructor's class roll. Students should verify the grading policy with the instructor at the beginning of each semester.

**Grade of W:** A grade of W may be assigned if a student chooses to withdraw from a class after Census date, but prior to the last date to drop posted in the University's Academic Calendar. *However, the grade of W is not automatically awarded.* Graduate students must consult with their Graduate Advisor before withdrawing from a class. Further, the student must secure the permission of the instructor and be passing the course (have a grade of A, B, C or P) at the time they intend to withdraw to receive a grade of W.

### Grades awarded in research or internship courses (P, R, F or W)

Students enrolled in most research or internship courses will receive a pass (P) when the project or internship is completed, or a grade of research in progress (R), fail (F) or withdrawn (W).

### Grades awarded in three-hour (5398) Thesis and three-hour (6399) Dissertation courses (R, F or W)

The only grades awarded in these courses are research in progress (R), fail (F) or withdrawn (W).

### Grades awarded in six-hour (5698) Thesis, six-hour (6699) Dissertation, nine-hour (6999) Dissertation and Dissertation Completion (7399) courses (P, R, F or W)

The grades pass (P), research in progress (R), fail (F) and withdrawn (W) may be awarded in these courses. The grade of P can be awarded when the thesis or dissertation is passed unconditionally by the supervising committee. Accordingly, a master's student must be enrolled in a 5699 Thesis course and doctoral students must enroll in the appropriate 6699, 6999 Dissertation or 7399 Dissertation Completion course the semester in which the thesis or dissertation is defended. Students typically enroll in these courses defend and apply for graduation in the same semester. The Dissertation Completion course (7399) may only be taken once and cannot be repeated.

## Credit Toward Degrees and Certificates

Only courses completed with a grade of A, B, C, or P can satisfy graduate degree or certificate requirements. However, courses in which grades of D or F are earned will affect a student's grade-point average. A student must have a B (3.0) grade-point average in courses included in their degree plan and a B (3.0) average in all work undertaken as a graduate student to have credits applied toward a graduate degree or certificate.

### Credit for Repeated Courses

A student may repeat a course only if that course is specifically designated in this catalog as one that can be repeated for credit. A student who fails to receive credit (earns a grade of D or F) may repeat the course in order to obtain credit, in which case the grades for both attempts will count in computing the student's overall grade-point average. No student will be allowed to repeat a course in order to change a passing grade of C or higher.

### Course Credit Applied to More Than One Degree

No course that has been applied to any degree, at any graduate or undergraduate institution, may be applied to any other degree, either directly or by substitution except in approved dual degree or approved fast track programs. The amount of shared credit between degrees in dual degree programs is limited and varies with the total number of hours needed to complete both degrees. See Dual Degree Programs in the Advanced Degrees and Requirements section of this catalog for details. Similarly, the amount of credit that can be shared in fast track programs is also limited. Details may be found in descriptions provided by participating programs elsewhere in this catalog.

### Credit for Advanced Undergraduate Coursework

Up to nine hours of advanced undergraduate credit from UT Arlington or another institution may be applied to a master's degree program if the hours have not been used to earn a previous degree and have the approval of the appropriate Graduate Studies Committee and the Dean of Graduate Studies. Approved fast track programs may allow dual credit.

### Transfer Credit and Course Waivers

#### Transfer Credit Applied to Master's Degrees

Equivalent coursework completed at other institutions of recognized standing may be transferred to a master's degree program after evaluation and approval. Transferred courses do not appear on the UT Arlington Official Transcript and grades earned in transferred courses are not included in calculating a student's UT Arlington graduate grade-point average.

No more than nine hours of transfer credit will be granted except in the professional master's programs that require more than 36 hours of coursework. In such programs, the number of transfer hours is limited to 25 percent of the total program hours. This rule does not invalidate written agreements between graduate programs and the Graduate School or agreements that are stated elsewhere in this catalog. Transfer credit will be accepted only for organized courses in which the student received a letter grade of B or higher and an official transcript showing the course(s) and grade(s) is required.

Courses from other universities taken after a student has been admitted into a master's program at UT Arlington must be approved in advance by the appropriate Committee on Graduate Studies

and is reviewed by the Graduate School. All work submitted for transfer credit must have been completed no more than six years before completion of a graduate program at UT Arlington.

To request transfer credit, students must complete the Transfer of Graduate Credit form and obtain approvals from the appropriate graduate advisor and chair of the Committee on Graduate Studies and final approval from the Graduate Dean. The form is available online at the [Graduate School web site](#).

### **Waiving Courses Required for Doctoral Degrees**

Graduate-level coursework completed in the student's major area of doctoral study at institutions of recognized standing that grant doctoral degrees in those subject areas may serve to establish the student's competency in equivalent UT Arlington courses. Competency demonstrated by successful completion of equivalent courses may provide a basis for waiving some UT Arlington course requirements and the credit hours associated with those courses. Waivers must be recommended by the student's graduate advisor and current supervising professor and their recommendation must be approved by both the Committee on Graduate Studies of the student's major area and the Office of Graduate Studies. Only courses in which the student has earned a B (3.0) or better (or a P if the UTA course is also graded P/F) will be considered for purposes of a waiver. In no case will final semester Dissertation course (6x99 or 7399) requirements be waived. Waived courses must be shown on the student's academic plan.

### **Transfer Credit Applied to Graduate Certificates**

Equivalent coursework completed at other institutions of recognized standing may be transferred to a graduate certificate program after evaluation and approval of the graduate advisor, the appropriate Committee on Graduate Studies and the Dean of Graduate Studies. The number of transfer units is limited to 50% of the total units required for the certificate, except in certificate programs that exceed 15 units, in which case 12 of those units must be taken in residence. This rule does not invalidate written agreements between graduate certificate programs and the Graduate School or agreements that are stated elsewhere in this catalog. Transfer credit will be accepted only for organized courses in which the student received a letter grade of B or higher and an official transcript showing the course(s) and grade(s) is required.

Courses from other universities taken after a student has been admitted into a graduate certificate program at UT Arlington must be approved in advance by the graduate advisor, the appropriate Committee on Graduate Studies and the Dean of Graduate Studies. The form is available online at the [Graduate School web site](#).

Grades earned in transferred courses are not included in calculating a student's UT Arlington graduate grade-point average.

### **Earning Graduate Course Credit as a UT Arlington Undergraduate Student**

Courses taken in undergraduate status may not be applied directly to a doctoral program.

Some departments do not permit students to enroll in graduate courses unless they have been admitted to Graduate School. Others allow students enrolled as undergraduates to take a limited amount of graduate coursework under the conditions described below.

All undergraduate students should consult with the appropriate Graduate Advisor before attempting to register for graduate courses.

#### **Advanced UT Arlington Undergraduates (Current Seniors)**

An undergraduate student at the University of Texas at Arlington may not use graduate courses (numbered 5000 and above) to fulfill undergraduate degree requirements except as part of an approved fast track program. However, an undergraduate needing no more than 12 hours in one semester (six semester hours in one summer session) to complete all the requirements for a bachelor's degree may register for graduate courses and apply them toward a master's degree at UT Arlington under the following conditions:

1. In no case may a student previously dismissed from or denied admission to the Graduate

School enroll in graduate courses or reserve courses for graduate credit.

2. All work for undergraduate credit must be completed during that semester or summer session in which the student enrolls in graduate courses.
3. Total registration for all work may not exceed 15 semester hours in a semester (or 12 semester hours in the summer sessions).
4. The student must submit to the Graduate Advisor a "Reservation of Courses for Graduate Credit by Undergraduate Students" form (available from Graduate Advisors). The reservation must be approved by the Graduate Advisor and the Dean of Graduate Studies, and the Registrar must certify that the reserved credit will not be applied to the student's undergraduate degree requirements. This form must be submitted in accordance with the deadlines printed in the [Graduate School Calendar](#) in this catalog.
5. The student must have at least a 3.0 undergraduate GPA to be eligible to enroll in a graduate course and to reserve it for graduate degree credit.
6. Courses taken at UT Arlington and reserved for graduate credit may be applied to a master's degree program only if a grade of A, B, C, or P was earned.
7. Credit is officially accepted for application to a graduate program when a student is unconditionally admitted to the Graduate School.
8. A maximum of 12 semester hours of graduate level courses may be reserved.

### Students Holding Bachelor or Higher Degrees Enrolled as Degreed Undergraduates

Students who have completed their undergraduate studies and have been awarded their bachelor's degree may enroll as degreed undergraduates in graduate-level course work and receive graduate credit at UT Arlington under the following conditions:

1. Courses taken at UT Arlington and reserved for graduate credit may be applied to a master's degree program only if a grade of A, B, C, or P was earned.
2. No more than 12 semester hours of credit earned while a degreed undergraduate may be applied for credit toward a master's degree. Students must file a request, approved by the Graduate Advisor, the Committee on Graduate Studies, and the Dean of Graduate Studies to apply such credits toward a graduate degree. The form is available online at the [Graduate School web site](#).
3. All courses that are applied to a master's degree must have been completed no more than five years before enrollment in a graduate program at UT Arlington. If the student has completed more than 12 semester hours of graduate courses in undergraduate status, only graduate courses completed within five years of enrollment in a graduate program at UT Arlington will become part of the graduate record and considered in computing the student's grade-point average.
4. A student may elect to apply all graduate courses completed in the last five years toward their degree or to apply none of this work. Selective application of courses is not permitted. If any courses are applied for credit toward a master's degree, all courses completed within the last five years will become part of the graduate record.

### Graduate Credit for Extension Classes

Work done in extension classes may be applied toward an advanced degree under the same conditions that apply to transfer work, except that credit for extension work is limited to six credit hours.

### Courses That Do Not Provide Graduate Credit

#### Personal Improvement Courses

Personal improvement individual or group music or art lessons and exercise and sports activities courses can not be used for the following: 1) to satisfy graduate degree requirements; 2) meet Graduate School enrollment requirements; 3) in computation of graduate grade-point averages or determination of academic probation or academic good standing in Graduate School; 4) in



calculation of grade-point averages for the purpose of admission to a Graduate Program or for certification for graduation from a Graduate Program.

### **Audited Classes**

University credit is not granted for audited classes and audited classes will not satisfy enrollment requirements.

### **Correspondence Courses**

Correspondence courses are not accepted for graduate credit.

### **Credit by Examination**

Credit by examination may not be used for graduate credit and no such credit, graduate or undergraduate may appear on graduate student transcripts.

## **Academic Standing**

### **Good Standing and Satisfactory Scholastic Progress**

Graduate students are considered to be in good academic standing and making satisfactory progress in a degree or certificate program if they 1) meet all admission conditions within the time required 2) have a B (3.0) or better grade-point average on all coursework undertaken while in Graduate School and 3) have a B (3.0) or better grade-point average in courses needed to satisfy degree requirements by the end of the semester in which they intend to graduate. Students must be in good academic standing by the end of their final semester in order to receive an advanced degree or certificate from UT Arlington. Refer to the section "Courses Not Providing Graduate Credit" for an explanation of courses that do not provide graduate credit and will not be used to determine academic standing or to satisfy degree requirements.

### **Academic Probation**

A graduate student whose cumulative grade point average falls below a 3.00 in all graduate courses, be they graduate or undergraduate level, taken while enrolled as a UT Arlington graduate student will be placed on academic probation. The student must attain a grade point average of at least 3.00 in the next semester he or she is enrolled or be subject to dismissal. Undergraduate courses or graduate courses graded P, R, I or W or courses that do not provide graduate credit (see Courses Not Providing Graduate Credit) cannot be used to remove the condition of academic probation.

### **Dismissal**

Students have the initial responsibility to recognize when they are having academic difficulties and are expected to initiate steps to resolve the problem. When a student is in academic difficulty, and dependent upon the severity of the problem, the student may receive an oral warning and/or written statement of the problem and required corrective actions from his or her program. Failure to take these corrective actions can result in termination from the degree program.

A student who has been dismissed from the Graduate School for failure to remove the condition of academic probation by meeting the 3.0 grade-point average requirement may be readmitted for further graduate study in the same or in a different program only if a Petition to the Graduate Faculty has been approved by the appropriate Committee on Graduate Studies and the Dean of Graduate Studies.

A student can be dismissed from a degree program not only for failure to maintain an adequate grade point average, but also for such reasons as unsatisfactory progress toward a degree as defined by the department or program, inability to pass a comprehensive examination, failure to prepare or to defend a thesis or dissertation in a satisfactory manner or complete thesis or dissertation work in an acceptable amount of time. Termination due to inadequate academic progress is a decision made by the program's or department's Graduate Advisor and Graduate

Studies Committee. A student's thesis/dissertation committee may recommend termination for failure to prepare a thesis/dissertation proposal, prospectus or final draft in a satisfactory manner or failure to complete work in an acceptable amount of time to the program's Graduate Advisor and Graduate Studies Committee. Such decisions to terminate a student must be communicated to the Dean of Graduate Studies by the Chairman of the Graduate Studies Committee with required justification. The Graduate Dean will review the case make the final decision. The student may continue enrollment until the Dean finalizes the termination decision.

Students failing to pass a comprehensive examination or thesis/dissertation defense may be terminated upon the recommendation of the examining committee. Such decisions are indicated on the Comprehensive Examination Report or Final Defense Report which are returned to the Dean of Graduate Studies. The Graduate Dean will notify the student formally of the program's or department's decision.

## Grievances

### Grievances Related to Grades

It is the obligation of the student, in attempting to resolve any student grievance regarding grades, first to make a serious effort to resolve the matter with the instructor with whom the grievance originated. Individual instructors retain primary responsibility for assigning grades. The instructor's judgment is final unless compelling evidence shows preferential treatment or procedural irregularities. If students wish to appeal, their requests must be submitted in writing on an Academic Grievance Form available in departmental or program offices to the department chair or program director. Before considering a grievance, the department chair or program director will refer the issue to a departmental or program committee of graduate faculty. If the committee cannot reach a decision acceptable to the parties involved, the department chair or program director will issue a decision on the grievance. If students are dissatisfied with the chair or director's decision, they may appeal the case to the academic dean. If they are dissatisfied with the academic dean's decision, they may appeal it to the Dean of Graduate Studies. Students have one year from the day grades are posted to initiate a grievance concerning a grade. (For grievances other than those related to grades, see the catalog entry titled [Grievances Other Than Grades](#).)

### Grievances Other Than Grades

In attempting to resolve graduate student grievances, the student must first make a serious effort to resolve the matter with the individual with whom the grievance originated. Grievances involving matters other than grades are appealed to the department chair or office director, then to the Dean of Graduate Studies (except in personnel matters, in which cases the appeal is to the Provost unless questions regarding a graduate assistant or graduate associate are involved), Vice President for Business Affairs, or Vice President for Undergraduate Academic and Student Affairs, as determined by the nature of the grievance. If the matter remains unresolved at this level, the student may appeal to the Provost. The decision of the Provost is final. (For grievances involving grades, see the catalog entry titled [Grievances Related to Grades](#).)

### Grievances Related to Discrimination or Sexual Harassment

Grievances alleging discrimination or sexual harassment committed by faculty, staff or students should be referred to the Office of Equal Opportunity and Affirmative Action for investigation. Their web site provides information on what constitutes discrimination or harassment and what steps students, faculty and staff may follow to address such situations and receive protection under University policy and State and Federal law.

## Registration and Enrollment Requirements for All Students

To attend The University of Texas at Arlington any given semester, a student must register and pay fees. All registration at UT Arlington may be done over the Web at [www.uta.edu/registrar](http://www.uta.edu/registrar). The current semester's Schedule of Classes gives the exact dates and times for registration and should be consulted each semester, not only for registration information but advising instructions

as well. The Spring Schedule of Classes is available in mid-October; the Summer/Fall Schedule of Classes is available in mid-March. New students, most readmitted former students and continuing students in certain majors must be advised. If advising is required, it must be done prior to registration.

### **Required Bacterial Meningitis Vaccination**

Effective January 1st, 2012, Texas state law (Section [51.9192](#) of the Texas Education Code) requires that first-time students, students transferring from another institution and students who are re-enrolling following an absence of at least one fall or spring semester who are under 30 years of age as of the first class day of the term be vaccinated against bacterial meningitis. Students under the age of 30 who plan to audit a course also must comply with this law. All incoming students and students returning after an absence of at least one fall or spring semester who are under 30 years old must submit documentation of immunization against bacterial meningitis. Students who fail to meet this requirement will be dropped from courses.

Students who are enrolled in only online courses that are fully online and that do not meet on campus are exempt from this requirement.

For information regarding the Texas meningitis vaccination law and required documentation of immunization, please visit [www.uta.edu/meningitis](http://www.uta.edu/meningitis).

### **Scheduling Classes**

All students must register to enroll in and attend classes. Students who are no longer eligible for enrollment at the start of the semester will have their registration canceled and their tuition and fees refunded.

### **Payment of Fees**

Refer to the Tuition, Fees, and Charges section of this catalog for registration billing and payment or access [www.uta.edu/fees](http://www.uta.edu/fees).

### **Late Registration**

Late registration is held each semester for students who are unable to register on their regular dates. Late registration takes place on the Web. Students should try to register on their earliest date since classes close during late registration and a late fee is added.

### **Additional Registration and Orientation Requirements for International Students**

International students must meet registration and enrollment requirements described in the preceding section titled **Registration and enrollment requirements for All Students**. In addition, international graduate students must satisfy the following requirements.

#### **Orientation**

All new international graduate students must attend an orientation at the beginning of their initial semester at The University of Texas at Arlington. Those who do not attend the International Student Orientation before registration will not be allowed to register during the regular registration period and must attend a makeup orientation on the morning of the first class day, before registering and being assessed a late fee. For more information please contact the Office of International Education at 817.272.2355 .

#### **Required Insurance**

International graduate students are required to purchase The University of Texas at Arlington Student Health Insurance Plan. After the initial semester of enrollment, the insurance premium will be added automatically to the student's fees. If the student has health insurance coverage through 1) an employer of the student, spouse, or parents, or 2) U.S. or home-country government sponsorship, the student Health Insurance Plan may be waived. For outside insurance to qualify



for the waiver, the coverage must include repatriation and medical evacuation benefits. If it does not cover repatriation and medical evacuation, and most U.S. policies will not, a supplemental policy must be purchased for that coverage. Students who wish to apply for the waiver must come to the Office of International Education prior to registration to show proof of outside coverage and documentation in English describing benefits provided by the non-UT Arlington insurance plan. For more information please contact the Office of International Education at 817.272.2355.

### **Required Tuberculosis Screening**

All new Non-U.S. Citizen/Non-Permanent Resident and Intensive English students must meet the following requirements in order to enroll in classes and remain enrolled in the University.

1. Upon arrival to the University for classes, each prospective student must have a Tuberculosis screening and/or chest x-ray in order to enroll. These may be obtained from the UT Arlington Health Services.
2. Those tested must return to UT Arlington Health Services to have the test read between 48 and 72 hours after administration (if not read within this time frame, the student must wait 10 days and then be re-tested). If the TB test is positive, the student must have a chest x-ray performed and the results received at UT Arlington Health Services within a 25-class-day time limit.
3. The testing or chest x-ray must be performed even if the student was immunized with BCG (a vaccine for TB). If the testing process and subsequent diagnostic exam are not completed and submitted to the UT Arlington Health Services by the 25th class day, the student will be dropped from classes and barred from reinstatement. For more information, please call Health Services Immunization Clinic at 817.272.7143.

### **Course Load (Credit Hour) Requirements**

#### **Continuous Enrollment Policy**

Graduate students must enroll in at least one credit hour of work related to their degree each long semester (Fall and Spring) in order to remain classified as an enrolled student. Some programs may specify a higher minimum enrollment requirement in their Handbook for Graduate Students or other published documents. Enrollment in Summer Sessions is not required, and students who do not enroll in summer will not be considered in violation of the continuous enrollment policy. However, students are required to register for appropriate courses in every semester or summer term in which they expect to receive assistance, use the facilities of the university, take diagnostic or comprehensive examinations or defend theses or dissertations. The minimum enrollment requirements for holding graduate assistantships or fellowships or the requirements of the enrollment requirements of other programs, offices and agencies such as the Veterans Administration, U.S. Citizenship and Immigration Services, and federal financial aid and certain loan programs, must be met. It is the student's responsibility to determine the enrollment requirements of such entities.

#### **All International Students**

International students must be enrolled for a minimum of 9 semester hours during each regular semester (Fall and Spring).

#### **Full-time Enrollment and Maximum Hours**

Full-time students are expected to enroll in at least 9 hours in a regular semester. The minimum full-time course load during the summer sessions is 6 hours. The maximum course load for full-time graduate students is 15 semester hours in a regular semester and 12 hours in a summer session. Registration in excess of these limits in exceptional circumstances must be approved by the student's Graduate Advisor.

#### **Required Enrollment for Teaching and Research Assistants**

Students receiving graduate teaching or research assistantships must meet enrollment requirements during the semester in which they are supported. Assistants should complete no more than 12 semester hours and no fewer than 9 semester hours per semester. They may

register for no fewer than 6 semester hours during the summer sessions. See the section titled Graduate Assistantship/Associateship Policy for exceptions to these rules and other requirements that Assistants and Associates must meet.

### **Required Enrollment for Students Receiving Financial Aid**

To qualify for most forms of financial aid administered through the Office of Financial Aid, students must enroll in and complete a certain number of credit hours each semester to meet the Satisfactory Academic Progress requirements to receive future financial aid. Students enrolling in 9 or more credit hours at Census Date must complete at least 6 of these hours whereas students enrolling in 6-8 credits hours at Census Date must complete 4 hours to qualify for financial aid. Students enrolling in 5 hours must complete 3 hours. If a student does not complete the required minimum number of hours, they will lose eligibility for aid in the next academic year of enrollment. Students enrolling in fewer than 5 hours at Census do not meet the enrollment requirements for financial aid. The Satisfactory Academic Progress policy may be found at [www.uta.edu/fao](http://www.uta.edu/fao). Contact the Office of Financial Aid for additional information and guidance on enrollment and eligibility requirements

### **Adding, Dropping and Auditing Courses**

#### **Adding and Dropping Courses**

Graduate students who wish to change a schedule by either dropping or adding a course must first consult with their Graduate Advisor. Regulations pertaining to adding or dropping courses are described below. Adds and drops may be made through late registration either on the Web at MyMav or in person through the student's academic department. Drops may occur until a point in time two-thirds of the way through the semester, session, or term. The last day to drop a course is listed in the Academic Calendar available at <http://www.uta.edu/uta/acadcal>.

1. A student may not add a course after the end of late registration.
2. A student dropping a graduate course after the Census Date but on or before drop date has passed may with the agreement of the instructor, receive a grade of W but only if passing the course with a C or better average. A grade of W will not be given if the student does not have at least a C average. In such instances, the student will receive a grade of F if he or she withdraws from the class.
3. A student desiring to drop all courses in which he or she is enrolled is reminded that such action constitutes withdrawal (resignation) from the University.
4. In most cases, a student may not drop a graduate course or withdraw (resign) from the University after the 12th week of class. Under extreme circumstances, the Dean of Graduate Studies may consider a petition to withdraw (resign) from the University after the 12th week of class, but in no case may a graduate student selectively drop a course after the 12th week and remain enrolled in any other course. Students should use the special Petition to Withdraw for this purpose. See the section titled Withdrawal (Resignation) From the University for additional information concerning withdrawal.

#### **Auditing Courses**

Any person who has credit in a particular course or who has a demonstrated need for the course content may be eligible for auditing that course if space is available. An auditor has the privilege of hearing and observing only; no University credit is granted for auditing. Audit applications may be secured from the Registrar's Office. A student may audit a graduate course only with permission of the instructor and approval of the Registrar. When the form has been completed and approved, the applicant, if currently enrolled, pays \$20 per course at Bursar Services; if not enrolled, the applicant pays \$100 per course. An academic department may place restrictions on the privilege of auditing or may deny permission to audit. Audited courses will not meet Graduate School enrollment requirements.

#### **Leave of Absence Policy**

A student may apply for a Leave of Absence in order to respond to exceptional circumstances that

will prevent him or her from meeting the continuous enrollment requirement. A Leave of Absence will be granted only for good cause, such as health-related issues, major financial or employment issues, pregnancy, childbirth, child care, elder care or other significant family concerns, or other major personal circumstances that interfere with a student's ability to undertake graduate study. Leaves are granted for up to two long semesters. Students returning from leave as scheduled will be automatically readmitted and will not be required to submit an application or pay an admission fee. Students who do not return at the end of their approved Leave of Absence must reapply for admission by the published application deadlines, pay all relevant evaluation fees, and are not assured of readmission to the University. During the time of the leave of absence, the student may not use University facilities or resources, receive an assistantship or fellowship, continue academic work with faculty, take a diagnostic or comprehensive examination, or defend a thesis or a dissertation. Time taken on an approved Leave of Absence will not count against degree completion time limits.

An approved Leave of Absence does not exempt students from the enrollment requirements of other programs, offices, and agencies such as the Veterans Administration, Immigration and Naturalization Service, and federal financial aid and certain load programs. It is the student's responsibility to determine what effect a Leave of Absence will have on his or her status with such entities. For example, International students approved for a Leave of Absence must inform the Office of International Education so that requirements of the Immigration and Naturalization Service can be addressed.

A student requesting leave should complete the Leave of Absence Request form and obtain the approval of his or her Graduate Advisor who will forward the request on the Dean of Graduate Studies for final review and approval. This form is available online at the [Graduate School website](#). Requests must be delivered to the Graduate School no later than the mid-semester deadline listed on the Graduate School Calendar for the semester in which the leave is to begin.

Leave of Absence will not be granted retroactively for a semester after the mid-semester point has passed. Students who miss this deadline must apply for readmission.

### **Withdrawal (Resignation) from the University**

A student who wishes to withdraw (resign) voluntarily from the University may do so by withdrawing from all graduate and undergraduate classes prior until the point of time corresponding to two-thirds of the duration of the semester or term. The exact date of the deadline is provided in the Academic Calendar available at <http://www.uta.edu/uta/acadcal>. After this deadline has passed, a graduate student or undergraduate student enrolled in a graduate course is not permitted to withdraw or to selectively drop courses. In exceptional cases, however, a graduate student may request to withdraw after the deadline by obtaining a Petition to Withdraw form and submitting it to the Dean of Graduate Studies. (Students should use the special Petition to Withdraw for this purpose and not the Petition form used for other types of requests.) If the petition is not approved, the student remains responsible for all coursework requirements. Therefore, students should not discontinue class attendance or course assignments unless they have been notified in writing that the Dean of Graduate Studies has approved the petition to withdraw. A Petition to Withdraw is available online at the [Graduate School web site](#) or in the Graduate School office.

### **Withdrawal as a Result of Military Service**

A student who withdraws as a result of military service is to receive the following considerations according to Section 54.006 of the Texas Education Code: (1) receive a refund of tuition and fees (2) if eligible, be assigned a grade of incomplete (I) or (3) as determined by the instructor, receive a final grade or credit in courses where the student has satisfactorily completed a substantial amount of coursework and has demonstrated sufficient mastery of the course material.

### **Change of Graduate Major, Program or Degree Level**

Students wishing to change graduate major, program or degree level (master's or doctoral classification) from the one in which they are enrolled currently or in which they were enrolled

during their most recent semester at UT Arlington must initiate the change by completing the "Request for Change of Graduate Program or Degree Level" form. Students may submit only one "Request for Change of Graduate Program or Degree Level" form at a time. Additional forms will not be processed until a final decision on any prior requests have been made. Students intending to change majors should consult the Graduate Advisor of the new program regarding program admission and degree requirements before completing this form. Similarly, students wishing to change degree level should submit the request after discussing the matter with the appropriate graduate advisor.

Students wishing to change from one program to a dual degree program must complete the "Request for Change of Graduate Program or Degree Level" form and mark the box stating "Request to Change to Dual Degree Program (master's level only).

Students wishing to change from a dual degree program to single degree program must complete the "Request For Change of Graduate Program or Degree Level" form and mark the box stating "Request to Change to New Graduate Program".

Students wishing to change from Doctoral to Masters degree level for conferral of the masters degree must complete the "Request for Change of Graduate Program or Degree Level" form and mark the box stating "Request to change form PhD to Masters status (for conferral of the master's degree)". Students will remain in masters status until award of the masters degree. Upon award of the masters degree students will be automatically changed back to doctoral status.

The "Request For Change of Graduate Program or Degree level" form can be found at our Web site <http://grad.uta.edu/students/forms/> or by request from the Graduate School Office.

## Graduation Requirements and Procedures

### Degree Conferral

Degrees are awarded at the end of the fall semester (December), spring semester (May) and summer session (August). Formal commencement ceremonies are held within the college or school in which the degree is earned. Students should contact the Office of the Dean of their department for information concerning the commencement ceremonies.

### Degree Requirements

Each graduate student must complete degree requirements in accordance with the Graduate Catalog in force at the time the student entered the graduate program in which the degree will be awarded or, at the student's option, the catalog of any subsequent year in which the student was in residence. If a student chooses to complete degree requirements in accordance with the catalog of a year subsequent to that in which he/she entered the graduate program, the student's graduate advisor must indicate such by submitting an online request form to the Graduate School. Graduate Advisors must contact the Office of Graduate Studies graduation desk to access the required form.

Please note that changes in Graduate School regulations and policies become effective for all enrolled students in the year for which the catalog is in force, regardless of the year of initial enrollment. Thus, students may choose to satisfy degree requirements specified in an earlier catalog, but all must observe Graduate School regulations and follow graduation procedures prescribed in the Graduate Catalog in force in the intended semester of graduation.

### Continuous Enrollment

After initial enrollment in the thesis or dissertation course, a student must maintain continuous enrollment in thesis or dissertation courses (summers excluded unless summer enrollment in thesis/dissertation is required by student's program) until the thesis or dissertation has been accepted by the Dean of Graduate Studies. This requirement applies even when a student is working on their thesis or dissertation at an off-campus location. Failure to maintain continuous enrollment may invalidate previous thesis or dissertation work.

## Enrollment Requirements for Thesis and Dissertation Courses

## Academic Standing

Students may not register for dissertation or thesis courses if they are not in good academic standing.

## Credit Hours

A student receiving advice and assistance from a faculty member in preparation of a thesis or dissertation must register for the appropriate course even if the student is not on campus. Variable credit is available for thesis and dissertation courses. Each semester, after consulting with their Graduate Advisor, students must register for the amount of thesis or dissertation credit commensurate with the effort to be expended by the student and the advisor in preparation of the thesis or dissertation. Most master's students must enroll in a six-hour thesis course (5698) and all doctoral students must enroll in the appropriate Dissertation (6699, 6999) or Doctoral Degree Completion course (7399) in the semester in which they intend to defend their theses or dissertations. A passing grade (P) is required in the appropriate thesis or dissertation course to complete graduation requirements and a P grade is only awarded when the thesis or dissertation defense results in an unconditional pass. A grade of R (research in progress) or a grade of F will be given in thesis or dissertation courses if they do not culminate in a successful defense. The grade of R is a permanent grade that does not carry any credit value. To meet graduation requirements, students must re-enroll in the appropriate thesis or dissertation course until the thesis or dissertation is completed and a grade of P is earned. The Doctoral Degree Completion course, 7399, may be taken only once and cannot be repeated.

## Final Semester Requirements

### Enrollment Requirements

All students must be enrolled in the Graduate School in the semester in which they complete all graduate degree requirements and apply for graduation. Students defending or completing required changes in their thesis or dissertation in their final semester must be enrolled in the proper thesis (typically 5698) or dissertation course (6699, 6999 or 7399) to receive a passing grade. Students may not petition for a reduction in this requirement. Enrollment in courses outside the major and minor fields will not satisfy final semester enrollment requirements. Students may request to graduate *In Absentia* if they have completed all degree requirements and must register simply to have their degree awarded.

### Funded Students Enrollment Requirement

Funded students are normally expected to be enrolled as full time students while holding an assistantship or associateship. Master's students who must enroll in a six-hour Thesis course or doctoral students who must enroll in a six or nine-hour Dissertation Course or three-hour Dissertation Completion Course because they have not received a passing grade in one of these courses must enroll in one of these courses and receive a grade of P in their final semester. However, master's students who need fewer hours to complete their degrees may petition for a waiver of full time enrollment as described in the Assistantship/Associateship Policy section of this catalog.

### In Absentia Registration

*In Absentia* registration is allowed when degree candidates have completed all requirements for graduation by the last date to qualify for *In Absentia* registration (see the [Graduate School Calendar](#)) and who would otherwise need to register in the following semester for the sole purpose of having a degree conferred. A student may only request *In Absentia* registration in the regular or summer semester immediately following the semester in which he or she was enrolled and completed all graduation and degree requirements. Students registered *In Absentia* may not enroll for courses. No refund is made for cancellation of *In Absentia* registration. *In Absentia* registration requires permission of the Graduate Advisor and the Dean of Graduate Studies. Students may obtain the Request to Register *In Absentia* Form on the [Graduate School website](#). In addition to paying the cost of *In Absentia* registration, candidates must file an application for graduation and pay the appropriate graduation fees for the semester of graduation.



## Application for Graduation

All graduating students must file an Application for Graduation with the Graduate School by the deadline specified in the [Graduate School Calendar](#) for the semester of graduation. The application and other information pertaining to graduation requirements may be found on the [Graduate School website](#). Neither the graduation application nor graduation fees are transferable to a subsequent semester; therefore, if a student does not graduate in the semester indicated in the initial application, a new application must be filed for the semester of graduation and the appropriate fees paid again.

Students who fail to apply for graduation by the deadline specified in the [Graduate School Calendar](#) may apply late by completing the Application for Graduation and paying a late fee. Applications for graduation will be accepted with a late fee for 30 calendar days after the deadline for applying for graduation. If this date falls on a weekend, the deadline for applying late will be the Monday after the date. After that date, no applications will be accepted and students must apply for graduation for a subsequent semester. Applicants for graduation will be billed the Graduation Application fee and, as appropriate, the diploma mailing fee and the late fee. Again, graduation charges are non-transferable and non-refundable. See the section titled Tuition, Fees, and Charges in this catalog for information on specific fees.

## Summary of Final Semester Requirements for Master's Degree Candidates

Each master's student must:

### **Enroll in**

1. the six-hour thesis course if a thesis plan student
2. the master's comprehensive course or equivalent if required by the student's program
3. at least one graduate course in the student's program if not enrolled in 1 or 2 above

### **File**

1. an Application for Graduation
2. a request for the Final Master's Examination, if applicable
3. the Final Master's Examination Report, if applicable
4. the appropriate checklist and the documents listed on that checklist upon notification of acceptance of the thesis, if applicable

### **Pay**

1. the Application for Graduation fee
2. the diploma mailing fee, if applicable
3. the required thesis library processing fee, if applicable
4. any other outstanding university charges

## Summary of Final Semester Requirements for Doctoral Candidates

Each doctoral candidate must:

### **Enroll in**

1. The appropriate dissertation course (6999, 6699, or 7399)

### **File**

1. an Application for Graduation
2. a request to Schedule Dissertation Defense
3. a Dissertation Defense Report
4. the appropriate checklist and the documents listed on that checklist upon notification of acceptance of the dissertation by the Graduate School.

### **Pay**

1. the Application for Graduation fee (diploma fee)
2. the diploma mailing fee, if required
3. the required dissertation binding, microfilming and Library Processing fees and the optional copyright fee.
4. any other outstanding university charges

## Deadlines

All Graduate School deadlines, as indicated on the calendar or in the explanation of policies and procedures, unless otherwise stated, are final at 5 p.m. of the date specified. By this time all transactions must be completed and documents received in the Office of the Dean of Graduate Studies. Transactions and documents requiring action or approval of Graduate Advisors, committees, instructors, department chairmen, academic deans or others prior to receipt by the Graduate School should be initiated by the appropriate person (student, instructor, Graduate Advisor or other) sufficiently in advance of the Graduate School deadline for the required actions to be taken and approvals received.

## Graduate Assistantship/Associateship Policy

Graduate teaching and research assistantships and associateships are funded through state appropriations and federal, state, local and private grants for at least three principal reasons. First, employment of graduate students in teaching and in research positions during their graduate education encourages and supports their participation in these two major functions of a university and thereby strengthens the quality of the students' educational experience. Second, assistantships and associateships provide direct financial support to outstanding students who are essential to the development of quality graduate programs. Third, graduate students provide valuable and necessary services to the University in their roles as teaching and research assistants and associates. It must be kept in mind, however, that graduate assistants and associates are first and foremost students. As such, their most important task is to complete their degree requirements in a timely fashion; this is the primary expectation of the University as well.

The University of Texas at Arlington supports the "Resolution Regarding Graduate Scholars, Fellows, Trainees, and Assistants" of The Council of Graduate Schools in the United States. A copy of the resolution and list of signatory institutions is available in the Graduate School and can be viewed at [www.cgsnet.org/portals/0/pdf/CGSResolutionMarch2009.pdf](http://www.cgsnet.org/portals/0/pdf/CGSResolutionMarch2009.pdf). To assure the appointment of the most highly qualified students available and to best realize the principal objectives for which graduate assistants are employed, The University of Texas at Arlington has adopted the following policies and regulations, all provisions of which apply to both graduate assistantships and graduate associateships.

## Admission Status

A student must be admitted to a degree program to be eligible to hold a graduate assistantship. Students admitted as Provisional students may not be considered for an assistantship until all provisional requirements have been resolved. New students, admitted with probationary conditions, may be considered for an assistantship, subject to the requirement that they earn and maintain a 3.0 grade-point average while enrolled as a graduate student, conform to admission conditions specified by the admitting department or the Graduate School, and meet assistantship enrollment requirements.

## English Proficiency

Before being appointed to a teaching assistantship at UT Arlington, a student whose native language is not English must demonstrate English proficiency. The preferred method to demonstrate proficiency is to submit an acceptable score of at least 23 on the Speaking Section of the TOEFL, or a score of at least 7 on the Speaking Section of the IELTS, or take and pass the UTA Developmental English course. The TOEFL and IELTS scores should be sent directly to UT Arlington by ETS or IELTS. Score reports submitted directly by the student or those marked "Student Copy" or "Applicant's Copy" are not considered official and will not be accepted by the

University. The English proficiency requirement will be waived for non-native speakers of English who possess a bachelor's degree from an accredited U.S. institution. See the catalog entry titled Application Documentation Requirements in the Admission Requirements and Procedures section for further information.

### Developmental English Program

Students who do not achieve scores on the TOEFL or IELTS high enough to satisfy the English proficiency requirements for graduate teaching assistants must enroll in the Developmental English Program and be certified for English proficiency before becoming eligible to hold a teaching assistantship. This 10-week program, offered by the UT Arlington English Language Institute, emphasizes oral presentation skills and accent reduction. Registration is in 402 Hammond Hall, and the charge for course is payable at the time of registration. Contact the English Language Institute at 817.272.2730 for details, including the current class schedule and charges.

### Continuation or Renewal of Appointment

Although a student may be appointed initially to a graduate assistantship for a full academic year, continuation of the appointment beyond the first semester is subject to the following conditions:

1. To continue or renew an appointment, the student must be in good standing in the University. A student on academic probation is not in good standing, and therefore, will automatically lose his or her assistantship. However, Graduate Advisors, with the written endorsement of their department's or program's Graduate Studies Committee, may petition the Dean of Graduate Studies to allow a one-time exception, granting one additional semester of assistantship support in the next semester of enrollment if they judge the student is capable of raising his or her GPA to the required minimum by the end of that semester and believe that the student is making satisfactory progress in all other aspects of their studies. If granted, the student will be considered to be in good academic standing for one semester for purposes of continuing their assistantship. This broadened definition of academic good standing for a student with a GPA below 3.00 applies only in cases where a program wishes to continue or renew a student's teaching or research assistantship during the semester of enrollment following the one in which his or her GPA dropped below 3.00. Programs may not request this exception on behalf of students who will hold any other type of employment.

A student granted one semester of good academic standing for purposes of continuing their assistantship must improve his or her UT Arlington graduate grade-point average to 3.00 and return to good academic standing as normally defined in the next semester of enrollment in order to qualify for assistantship support in subsequent semesters. Requests to extend this form of good standing beyond one semester will not be approved. Further, students who have previously received a one-semester extension of academic good standing for purposes of continuing their assistantship will not be eligible for this exception again.

2. The student must be making satisfactory progress toward an advanced degree.
3. The student must have performed assigned assistantship duties satisfactorily in the preceding semester(s) as determined by the department in which the assistantship is held.

A department may limit the number of semesters during which a graduate student may hold an assistantship.

### Resident Tuition Rates

Graduate teaching and research assistants employed at least 20 hours per week in positions related to their degree programs are entitled to Texas resident tuition rates. Eligibility for the resident rate must be certified prior to registration otherwise, full tuition will be assessed. Non-resident students receiving appointments after a term's published Census date will not be eligible for resident tuition rates in that term.



Non-resident or international students holding less than full assistantships (full meaning 20 hours employment per week) are not eligible for Texas resident rates.

## Course Load

### Full Assistantships

Graduate assistants holding full assistantships (20 hours of employment per week) may register for and must complete no fewer than nine semester hours and no fewer than six semester hours during the three summer semesters.

The nine hour minimum registration limit may be reduced to six semester hours for thesis and dissertation students who 1) have completed all required coursework 2) are registered for thesis or dissertation research only. In such cases, master's students should enroll in 5698 and doctoral students who have passed their Comprehensive Examinations should enroll in 6699 course. International students meeting these requirements must obtain written permission from the Office of International Education to enroll in fewer than nine hours and present it to the appointing department. Students defending their theses typically must enroll in a six-hour thesis course. Doctoral students who have completed or will complete a total of at least nine hours of dissertation research in 6399, 6699, 6999 and/or 7399 courses prior to graduation may meet minimum registration requirements in the term they intend to defend their dissertations and graduate by enrolling in 7399. However, if a student does not graduate after enrolling in 7399, he or she must enroll in 6699 or 6999 until graduation. The 7399 course may not be repeated. Students may not petition for a course load reduction below these requirements.

Non-thesis master's students with only three to six hours of organized coursework left to complete a program in his or her final semester are permitted to hold an assistantship while enrolled in the three to six hour course. International students in these instances must obtain written permission from the OIE for less than nine hours of enrollment and present it to the appointing department.

### Partial Assistantships

Graduate Teaching Assistants or Graduate Research Assistants who have a 25% (10 hours of employment per week) or less appointment must be enrolled for at least six hours during a long semester and three hours during the summer. This enrollment requirement covers both organized courses and dissertation and thesis hours. However, all graduate students, whether funded or unfunded, must follow UT Arlington policy concerning required enrollment in the final semester.

## Assignment of Duties

Graduate assistants are under the direction of the department chair with regard to assistantship responsibilities and assignments.

## Additional Employment While an Assistant or Associate

### All Students

In accepting a graduate assistantship/associateship, students agree to devote their efforts to graduate studies and assistantship/associateship responsibilities. In some circumstances, however, additional employment may be justified. Immigration policies severely restrict the amount that an international student may work.

### U.S. Citizen Students

Full-time (20-hour) graduate assistants wishing to hold additional assistantships/associateships or accept additional on or off-campus positions must obtain the approval of their Graduate Advisor. Approval will only be given if the additional work will not impact the student's academic progress negatively or exceed employment limits allowed by law.

### International Students

During the fall and spring semesters, international students may work on campus only 20 hours per week unless authorized for additional employment through Curricular Practical Training (CPT). During vacation and the summer, international students may work more than 20 hours per week on-campus without additional authorization. At anytime during the year, employment with an off-campus employer must be authorized by either BCIS or by the International Office in the case of CPT. The Office of International Education must grant approval prior to taking on additional employment if that employment is to be authorized by CPT. Students holding a UT Arlington assistantship wishing to work off-campus in addition to the assistantship, must 1) meet and maintain the enrollment requirements for holding an assistantship 2) meet the immigration requirements for CPT 3) work only part-time (20 hours or less) off-campus 4) be employed in off-campus work that is clearly connected to his or her assistantship. If these requirements are not met, a student will be obliged to give up either the assistantship or the off-campus employment.

## Seeking Exceptions to Policies of the Graduate School

A student may petition for exceptions to published rules of the Graduate School by submitting a Petition to the Graduate Faculty form to his or her Graduate Advisor. The Graduate Advisor and the departmental Committee on Graduate Studies Chair will evaluate the petition and send it to the Dean of Graduate Studies for final judgment. Limited exceptions to some rules may be approved if the facts presented by the petitioner are fully justified in the views of the Advisor, Committee on Graduate Studies Chair, and Graduate Dean. All petitions must be submitted on the petition form available online through the [Graduate School website](#).

## Course Designation System

The following example provides an explanation of the designation system of graduate courses at The University of Texas at Arlington.

### 5313 CARBONATE PETROLOGY (2-3)

1. The four-digit number (5313) is the departmental unique numerical designation for the specific course listed.
  - a. The first digit (5) in the above example denotes the level of the course. Graduate courses are designated 5 or 6.
  - b. The second digit (3) denotes the semester hour credit of the course.
  - c. The third and fourth digits (1 and 3) are departmental designations and may or may not have sequential significance.
2. The first number in parentheses following the course title indicates the class hours per week devoted to lecture. The second number indicates the class hours per week devoted to laboratory, practice or fieldwork for the fall or spring semester.

Each department or program has been assigned a unique two-, three- or four-character prefix for use in course designations on registration documents, transcripts and other University records. For example, the Carbonate Petrology 5313 course described above is taught in the Department of Geology and appears on student records as GEOL 5313. The two-, three- or four-character prefix is given in parentheses after the department or program name in the catalog section describing academic departments and programs.

[Graduation Requirements and Procedures](#)  
[Graduate School Deadlines](#)  
[Graduate Assistantship/Associateship Policy](#)

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
 Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
 ©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Board of Regents](#)[Graduate School](#)[Directory of UT Arlington Offices](#)[Regulations](#)[Tuition & Fees](#)[Financial Aid](#)[Student Services](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Tuition & Fees

### Description of Tuition, Fees, and Charges

#### Cost of Attendance and Financial Aid Opportunities

#### Other Fees, Charges, and Expenses

- [International Student Health Insurance](#)
- [Mav Express Card Features and Charges](#)
- [Maverick Parking Garage](#)
- [Parking Permit Charge](#)
- [Graduation Charges](#)
- [Cost of Books](#)
- [Transcripts](#)

#### Tuition, Fees, and Charges: Exemptions and Waivers

#### In Absentia Registration Fee

#### Academic Common Market

#### Payment of Tuition, Fees, and Charges

#### Withdrawal for Non-Payment

- [Payment Options](#)
- [Payment Methods and Locations](#)

#### Concurrent Enrollment

- [Cooperative Programs Between University of Texas System Components](#)
- [Sponsored Students/Texas Tomorrow Fund Participants](#)

#### Residency Regulations

#### Schedule Adjustments

#### Dropping Course(s) but Continuing Enrollment

#### Total Withdrawal from School

- [Disbursement of Refunds](#)

#### Refunds

Tuition and fees are subject to change by legislative or regental action and become effective on the date enacted. The Texas Legislature does not set the specific amount for any particular student fee. The student fees assessed above are authorized by state statute; however, the

specific fee amounts and the determination to increase fees are made by the university administration and The University of Texas System Board of Regents. Visit [www.uta.edu/fees](http://www.uta.edu/fees) for current tuition, fees, and charges.

To comply with Senate Bill 1304, passed by the 81st Texas Legislature the University of Texas at Arlington is required to report to each student the amount of tuition paid by the student that must be set aside to provide financial assistance to qualified students. UT Arlington will notify students by email of the set aside amount.

Tuition is charged based on course of study; therefore a precise semester registration total may be calculated by accessing the Registration Cost Estimation site at [www.uta.edu/fees](http://www.uta.edu/fees)

The "99 hour rule" refers to the implementation of Senate Bill 961, passed by the Seventy-fifth Legislature. It is the rule that students admitted during the fall semester of 1999 and thereafter who complete more than 99-hours of *doctoral* level study may be required to pay out-of-state tuition for every subsequent semester. UT Arlington does not to automatically change tuition rates when a doctoral student passes the 99-hour mark. The policy of the University is as follows: Doctoral students who enrolled under the Summer 1999 or subsequent catalogs will be charged non-resident tuition under the following conditions: A doctoral student must pay non-Texas resident tuition beginning the first long semester in which a) the student has been enrolled previously as a graduate student for 14 or more long semesters, AND b) the student has accumulated more than 99 semester credit hours of doctoral study at UT Arlington. Students exceeding both limits will not be eligible for assistantships supported by state funds. Individual exceptions for students exceeding these criteria who are nearing degree completion are considered.

A Designated Tuition discount will be given to students who meet ALL of the requirements published at [www.uta.edu/fees](http://www.uta.edu/fees).

## Description of Tuition, Fees, and Charges

Tuition, fees, and charges are assessed to students based on semester credit hours (SCH), a set charge per semester, or specific services. They are either required by all students, charged to everyone taking specific courses or anyone receiving specific services, or charged only for voluntary products or services. Refer to [www.uta.edu/fees](http://www.uta.edu/fees) and choose Description of Tuition, Fees and Charges.

## Cost of Attendance and Financial Aid Opportunities

Cost of attendance equals the estimated cost of books, transportation, living expenses plus tuition and fees. Current estimated cost of attendance and financial aid opportunities available through the Financial Aid Office can be found at [www.uta.edu/fao](http://www.uta.edu/fao). Navigate to the *Cost of Attendance* option under *the Financial Aid* menu for detailed information.

## Other Fees, Charges, and Expenses

### International Student Health Insurance

International students are required to purchase The University of Texas at Arlington Student Health Insurance Plan while enrolled at the University. Exceptions to this requirement are:

- Coverage by the UT Arlington faculty/staff insurance
- Continuing coverage under a mandatory government-sponsored health plan
- Continuing coverage under a mandatory employer-sponsored insurance plan

Proof of coverage and benefits provided must be documented and must be comparable to the University-sponsored plan. All policies under the three categories of exceptions must contain at least a \$7,500 repatriation benefit and a \$10,000 medical evacuation benefit. All policies must

meet USIA regulations for those in "J" status. If coverage does not include medical evacuation and repatriation, supplemental policies covering those items will be made available.

### Mav Express Card Features and Charges

The Mav Express Card is used for accessing controlled facilities, checking books from the Library, and for cashing checks at Bursar Services. In addition, it is used for on-campus printing privileges, admission to various University activities, and as a form of personal identification.

A student may choose to deposit money on the Mav Express Card. This debit feature is called Mav Money. Students may use Mav Money at Dining Services, Bursar Services, University Center, Student Health Services, vending machines and many other locations on and off campus. Deposits may be made and account activity reviewed online. In addition, a student may link a Mav Express Card to a free Wells Fargo checking account which allows the student to make PIN-based debit transactions.

Each student at UT Arlington is required to pay a \$15 Mav Express Card activation charge for each fall, spring, and 11-week summer semester of enrollment. The 5-week summer session, Maymester, and Winter Session are \$7 each.

The Mav Express Card is a permanent card. As a student registers for a semester, the card is automatically validated. It is not necessary to obtain an additional Mav Express Card unless the student loses or destroys the card. The replacement charge for a lost or destroyed card is \$15.

For additional information, visit [www.uta.edu/mavexpress](http://www.uta.edu/mavexpress) or call 817.272.2645

### Maverick Parking Garage

The optional parking garage is available at an additional per semester charge, plus gate card deposit. Day and night passes are offered. Passes must be picked up at the garage and are only for parking in the garage. A parking permit must be purchased for parking elsewhere on campus.

Contact the Maverick Parking Garage at 817.272.2370 for specific rates and availability.

### Parking Permit Charge

All students who drive to a vehicle on campus need a permit to enter or park legally on campus. Please order your permit online for Decal Request through the registration screen from your student service center on the Web. All students who order their permit before the first day of class will be mailed their permit. The permit will be mailed to their current University mailing address. If students order their permit after the first day of class, they will need to pick up the permit at the University Police Parking Service Office, 1225 W. Mitchell, Suite 112. Hours of business are 7:30 a.m. to 5 p.m. Monday-Friday, with the exception of registration periods. Students picking up dorm or rental property parking permit must show proof of residency if they are not listed as primary resident.

If students withdraw from school any time before classes begin or before the census date, they must bring their permit to the Parking Office to receive a full/partial refund or mail the permit back by certified mail. If the permit is not returned, or if students lose or misplace the permit, a refund cannot be given. Each student will receive only ONE permit per fiscal year. If it becomes necessary to drive a different vehicle, the permit is transferable. However, the permit owner is responsible for all violations accrued by any vehicle that has their permit displayed. Students who terminate their enrollment prior to spring registration and who have paid a vehicle permit fee may receive a partial refund in accordance with the Rules and Regulations booklet provided they return their permit. No refunds on parking permits will be given after the spring census date for students. Ownership of the permit remains with the institution and is not transferable.

Students are responsible for picking up a copy or visiting the Web site for the Rules and Regulations booklet that contains campus parking policies. For additional parking information or hours of extended service during registration, call 817.272.3907 or visit the Web site <http://www.uta.edu/campus-ops/police/parking/office.php>.

## Graduation Charges

A graduation application fee must be paid by each doctoral and master's degree candidate when he/she applies graduation. If graduation is delayed to a subsequent semester, the student must reapply for graduation and graduation fees again. Graduation fees are non-refundable and non-transferable. Students who request that their diplomas be mailed after graduation will also be required to pay the appropriate mailing fee.

## Cost of Books

Cost of books depends upon the courses selected. Generally, books for technical subjects are somewhat higher than those for other academic subjects. In certain technical, scientific and fine arts fields, there are extra expenses for equipment and supplies.

The University Bookstore has available both new and used textbooks. The bookstore will purchase used textbooks which are in good condition at any time during the year provided such textbooks continue to be used by the academic departments and if needed by the bookstore.

## Transcripts

The Registrar's Office will mail an official copy of an academic transcript at the written request of a student upon receipt of payment of \$7 for each copy requested. When working conditions permit, the office will provide one-day transcript service if requested. An official transcript will not be issued unless all financial obligations to the University have been satisfied.

## Tuition, Fees, and Charges: Exemptions and Waivers

State law provides for several exemptions or waivers of tuition, fees, and charges. Students qualified for a reduced rate in any of the exempt categories must have that eligibility certified prior to registration. For a complete description and eligibility requirements, please go to [www.uta.edu/fees](http://www.uta.edu/fees) and select Exemptions and Waivers. This website will also provide department contact information and tuition, fees, and charges that are exempt or waived. Additional information may be found in the Texas Education Code.(see [www.statutes.legis.state.tx.us/Docs/ED/htm/ED.54.htm](http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.54.htm))

## *In Absentia* Registration Fee

A candidate for a degree who has completed all requirements for graduation by the last date to qualify for in absentia registration (see Graduate School calendars) and who would need to register for coursework for the sole purpose of having a degree conferred may register *In Absentia* with permission of the Graduate Advisor and the Dean of Graduate Studies. To obtain permission, the student must file a Request to Register *In Absentia*. A student who is approved for *In Absentia* may not enroll for courses. The student must also pay the appropriate *In Absentia* fee. No refund is made for the cancellation of *In Absentia* registration. In addition to paying the cost of *In Absentia* registration, the candidate must file an application for graduation and pay the appropriate graduation fees.

## Academic Common Market

The Academic Common Market is an interstate agreement for sharing academic programs through an exchange of students across state lines. Fifteen southern states take part in the Academic Common Market. Texas, Florida and North Carolina participate at the graduate level only. Selected out-of-state programs that are not offered in a student's home state can be accessed through the Academic Common Market at in-state tuition rates.

For information on the graduate programs at The University of Texas at Arlington that are available through the Academic Common Market and the states that have access to those programs,



contact the Graduate School or the Academic Common Market coordinator in the home state.

Further information on the Academic Common Market may be obtained from the Texas State Coordinator for the Academic Common Market: Texas Higher Education Coordinating Board, P.O. Box 12788, Austin, Texas, 78711. Phone: 512-427-6525. E-mail:

[linda.mcdonough@thecb.state.tx.us](mailto:linda.mcdonough@thecb.state.tx.us)

## Payment of Tuition, Fees, and Charges

Please go to [www.uta.edu/fees](http://www.uta.edu/fees) for information on due dates, deadlines, detailed penalties and refunds.

## Withdrawal for Non-Payment

Please go to [www.uta.edu/fees](http://www.uta.edu/fees) and select Withdrawal for Non-Payment for current detailed information.

## Payment Options

Please go to [www.uta.edu/fees](http://www.uta.edu/fees) and select Payment Information for current detailed information.

- **Installment Plan:** A student is activated on the Installment Plan by agreeing to the Registrant's Responsibilities and by paying one third (1/3) of the current term balance. Additionally, if your tuition, fees, and charges increase for any reason, such as residency status changes or schedule adjustments, the new higher total will be divided into the remaining payment. The service charge for choosing this option is \$10 for each additional billing (max \$20 per term). By using the Installment Plan, you will not be eligible for a Designated Tuition discount. Visit [www.uta.edu/fees](http://www.uta.edu/fees) and select Installment Plan for more information.

Note: The following quotation from Texas Education Code 54.007 applies to installment payments due: "A student who fails to make full payment of tuition and fees, including any incidental fees, by the due date may be prohibited from registering for classes until full payment is made. A student who fails to make payment prior to the end of the semester may be denied credit for the work done that semester."

- **Financial Aid:** Please read the Financial Aid section of this catalog or visit [www.uta.edu/fao](http://www.uta.edu/fao) for information.
- **Enrollment Loans:** Loans are offered only if funds are available and the borrower meets underwriting requirements published at [www.uta.edu/fees](http://www.uta.edu/fees). Please visit this website for specific information.
- **Third Party Billing:** Sponsored Student Information can be found at [www.uta.edu/fees](http://www.uta.edu/fees).

Questions may be directed to Bursar Services, 817.272.2172. Detailed student account information may not be released to anyone other than the student without the student's written permission in Bursar Services.

## Payment Methods and Locations

The University accepts cash, checks, traveler's checks, money orders, wires, and the following credit cards: MasterCard, Visa, Discover, Diner's Club, and American Express. Any form of payment that is returned unpaid can result in enrollment withdrawal and additional penalties.

- **Online:** Pay by credit card or electronic bank draft/ACH transfer from your checking or savings account at [www.uta.edu/makepayment](http://www.uta.edu/makepayment).
- **24-Hour Drop Box:** Check or money order payments may be placed in the secure drop box located in the North 1st floor entrance to E.E. Davis Hall. Please include your 10-digit student ID number. Do not deposit cash or traveler's checks in the drop box.
- **In Person:** Payments can be made in person at Bursar Services, Room 130, E.E. Davis

Hall.

- **Mail:** Please include your 10-digit student ID number and do not mail cash or traveler's checks. Check or money order payments can be mailed to:  
UT Arlington Bursar Services  
P.O. Box 19649  
Arlington, TX 76019-0649
- **Traveler's Check:** Traveler's checks must be signed in the presence of a cashier and should be presented in person at the Bursar's window during their regular business hours.
- **International Wires:** Demand drafts and international checks are held for 60 days before refunds can be issued. The use of wires is recommended to expedite refunds.
- **Kiosks:** Payments can be made at kiosks across campus using credit cards, debit cards, and checking or savings accounts.

## Concurrent Enrollment

### Cooperative Programs Between University of Texas System Components

A student concurrently enrolling at two or more University of Texas System components and participating in a joint cooperative program may register and pay tuition, fees, and charges for all courses through the student's home institution. The concurrent enrollment agreement and waiver of specified fees and charges applies only to students following the concurrent enrollment procedures specified by the registrar of the home institution. Detailed procedures may be obtained from the registrar of the student's home institution. UT Arlington students will find additional information by going to [www.uta.edu/fees](http://www.uta.edu/fees) and selecting Concurrent Enrollment. The concurrent enrollment agreement and waiver of specified fees and charges applies only to students following the concurrent enrollment procedures specified by the registrar of the home institution. Applicable tuition, fees and charges will be assessed and collected at the home institution for the other institution(s). The charges for the following will be assessed and collected at the home institution for the other institution(s):

- Flat rate Tuition at an appropriate rate
- Applicable laboratory fees and special course charges
- Enhanced Designated Tuition
- Any other fees and charges that are required at the host institution that are not charged at the home institution

Student services at the second institution will be made available to concurrently enrolled students paying the appropriate student service fees at the second institution. Some institutions have a reciprocal agreement for honoring parking permits. Details may be obtained from the police departments on each campus. Concurrently enrolled students should report any problems concerning registration, payment of tuition, fees, and charges or other matters related to concurrent enrollment procedures to the registrar of the home institution.

Concurrent students wishing to add or drop courses must do so in compliance with the host institution's policy. On or before the host institution's Census Date, adds or drops may be done through the home institution's registrar. After the Census Date, drops must be done at the host institution.

### Sponsored Students/Texas Tomorrow Fund Participants

It is the student's responsibility to contact Bursar Services, Rm. 130, Davis Hall, 817.272.2172, each semester prior to the payment deadline date to confirm that an authorization has been received and is sufficient to secure the current term registration.

## Residency Regulations



Resident classifications are determined in accordance with Title 19, Chapter 21, Subchapter B of the Texas Administrative Code and the rules of the Texas Higher Education Coordinating Board for determining residence status. Except as specifically provided by law, an individual classified as a non-resident student must pay tuition, fees, and charges required of non-resident students. Students may access the Coordinating Board's rules at [www.theccb.state.tx.us/index.cfm?objectid=600F0651-BB5D-C070-AD7C2669CE8DBF4F](http://www.theccb.state.tx.us/index.cfm?objectid=600F0651-BB5D-C070-AD7C2669CE8DBF4F) and then viewing Subchapter B.

To be considered a Texas Resident a person must establish a domicile in Texas not later than one year before the census date of the academic term in which the person is enrolled in an institution of higher education, and maintain that domicile continuously for the year preceding the census date. Generally, a person enrolling in an institution of higher education prior to having established a domicile in Texas for 12 consecutive months immediately preceding the census date will be classified as a nonresident student.

Additionally, a person is eligible to be classified as a Texas Resident if the person: maintained a domicile in Texas for at least 36 months prior to graduation from a Texas high school or receipt of the equivalent to a Texas high school diploma, graduated from a Texas high school or received the equivalent of a Texas high school diploma, and maintained a residence in Texas for the 12 months preceding the census date at an institution of higher education. The domicile of a dependent's parents is presumed to be the domicile of the dependent unless the dependent meets all the requirements of this paragraph.

If while attending an institution of higher education a person classified as a nonresident meets the requirements to domicile in Texas, the nonresident student may reclassify as a Texas Resident if business and personal facts or actions are unequivocally indicative of a fixed intention to domicile permanently in Texas. A nonresident classification is presumed to be correct as long as the residence of the individual in Texas is primarily for the purpose of attending an educational institution. Students wishing to reclassify will need to complete a set of the Core Residency Questions ([www.collegeforalltexas.com/index.cfm?ObjectID=6D1466D9-AEA5-DE00-C12F3F75E7367718](http://www.collegeforalltexas.com/index.cfm?ObjectID=6D1466D9-AEA5-DE00-C12F3F75E7367718)) and turn them into the Graduate Admissions Office with supporting documentation.

Generally, a student attending The University of Texas at Arlington who is not classified as a Texas Resident will be charged nonresident tuition. Certain nonresident students, however, are entitled to pay tuition and other fees at the Texas Resident rate. For example, military personnel assigned to duty in Texas, and their spouses and dependent children, are entitled to pay the same tuition as a Texas resident if certain documentation is provided (see Texas Education Code, Section 54.058, [www.statutes.legis.state.tx.us/Docs/ED/htm/ED.54.htm#54.058](http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.54.htm#54.058) for details and other residency benefits that are extended to military personnel and their families). Similarly, students who hold a competitive academic scholarship of \$1,000 per year or more awarded through The University of Texas at Arlington are entitled to pay resident fees and charges. Other exceptions to the requirement that nonresident students pay nonresident tuition, fees, and charges are included in the Texas Higher Education Coordinating Board rules for determining residence status.

The responsibility of registering under and maintaining the proper residence classification rests on the student. If there is any question concerning the student's classification at the time of registration, or any time thereafter, it is the student's obligation to consult with the residence advisor in the Graduate School and have the student's classification officially determined. All requests for reclassification should be submitted to the Graduate School at least 30 days prior to the census date of the term in question. Residency appeals are made to the Residency Appeals Committee. Decisions of the committee are final.

## Schedule Adjustments

All adds, drops and other registration adjustments through the term will cause an immediate, automatic fee recalculation.

## Dropping Course(s) but Continuing Enrollment

Students who remain enrolled in at least one course will be refunded in full for any course dropped by the 12th class day. If a course is dropped after the 12th day of class, the student is financially responsible for the full cost of the course.

## Total Withdrawal from School

A student who officially withdraws from a term (drops all hours of a specific term) will receive a refund according to the schedule below.

1. A student who withdraws prior to the first official university class day will receive a 100 percent refund.
2. If the foregoing condition is not met, then the refund shall be as shown below. Class days noted are official University class days based on the term's long session start date. They are not the individual student's class meeting days.
  - a. During class days 1 through 5 - 80%
  - b. During class days 6 through 10 - 70%
  - c. During class days 11 through 15 - 50%
  - d. During class days 16 through 20 - 25%
  - e. After 20th class day - no refund
  - f. Further details and precise dates are available at <http://www.uta.edu/policy/sfs/refunds/>
  - g. Parking refunds must be applied for separately at the Parking Office, 1225 W. Mitchell.

## Disbursement of Refunds

If a student receiving financial assistance withdraws (resigns) from all courses at the University of Texas at Arlington, then UT Arlington and/or the student may be required to return some of the federal, state, and/or institutional funds awarded to the student. These funds would be returned to the grant, scholarship, or loan fund from which the assistance was received.

The federal Return of Title IV Funds policy requires that a portion of federal aid be returned if the student withdraws on or before completing 60% of the semester for which student received federal aid. Students receiving all grades of F or a combination of all Fs and Ws are subject to the Return of Title IV Funds Calculation. Federal financial aid includes the Federal Pell Grant, Federal Academic Competitiveness Grant (ACG), Federal SMART Grant, Federal Supplemental Educational Opportunity Grant (FSEOG), LEAP Grant (formerly SSIG), Federal TEACH Grant, Federal Perkins Loan, Federal Stafford Loan (subsidized and unsubsidized), and the Federal Parent Loan for Undergraduate Students (PLUS).

Depending on the types and amounts of aid received, UT Arlington may be required to return a certain portion of funds, and the student may be required to repay a portion of the funds. If the student owes a repayment of grant funds as a result of the calculation, he/she cannot receive future federal financial aid funds at any school until repayment has been made. Any federal loan amount owed by the student is to be repaid under the terms of the promissory note. The student may owe an outstanding balance to UT Arlington once we return funds required through the federal Return of Title IV Funds calculation. Complete details of the policy can be found at [www.uta.edu/fao](http://www.uta.edu/fao), click Financial Aid on the left menu, then Return of Funds Policy. Contact the Office of Financial Aid for additional information.

## Refunds

Current detailed information is available at [www.uta.edu/fees](http://www.uta.edu/fees). Select Refunds (Withdrawals and Drops). UT Arlington recommends the use of Direct Deposit for receiving refunds. Inquiries

concerning refunds should be directed to Bursar Services, Room 130, Davis Hall, 817.272.2172.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax 817.272.1494  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- Home
- Degree Requirements
- Fields of Study
- Admissions Requirements & Procedures
- General Information & Regulations
- Board of Regents
- Graduate School
- Directory of UT Arlington Offices
- Regulations
- Tuition & Fees
- Financial Aid
- Student Services
- Graduate Calendar
- Graduate Faculty
- Table of Contents
- Index

## Financial Aid

### Financial Aid

- [Assistance Based on Need](#)
- [Financial Counseling](#)
- [Out-of-State Student Assistance](#)
- [Veterans' Assistance](#)

### Fellowships and Scholarships

### Assistantships

### Financial Aid

252 Davis Hall | Box 19199 | 817.272.3561 | [www.uta.edu/fao](http://www.uta.edu/fao)

The following summaries are for informational purposes only. Current information on each program is available from the Financial Aid Office and by accessing the Financial Aid Web site.

Students subject to selective service registration will be required to file a statement that the student has registered or is exempt from selective service registration to be eligible to apply for state or federal financial aid.

### Assistance Based on Need

Students wishing to participate in any of the following financial aid programs should complete a Free Application for Federal Student Aid (FAFSA) as early as possible prior to their actual enrollment at the University. The funding process takes approximately four weeks for completion. Financial aid in these categories is generally limited to U.S. citizens or permanent residents. Funding for graduate courses is only available to students admitted to the Graduate School as "Regular" students. "Special" and "Transient" students are not eligible for these programs.

With the exception of post-baccalaureate students seeking certification in the following areas: early childhood - grade 6, middle level, secondary and all level, non-degree seeking students in stand-alone certificate programs awarded by UT Arlington are not be eligible to receive need-based financial aid.

### Grant Assistance

Grant funding is available for graduate students through the Texas Public Education Grant (TPEG) and the Mav Grant. Grants are funds that normally do not require repayment. Recipients must have demonstrated financial need as verified through the completion of the FAFSA, and meet the published priority financial aid application deadline. TPEG funds are available to international students. Please contact the Financial Aid Office to complete an International TPEG form.

### Graduate Loan Programs

The Federal Perkins Loan, Federal Stafford Loan (subsidized and unsubsidized), and College

Access Loan (CAL) are the primary sources of long-term loans available at UT Arlington. These programs include deferred repayment provisions that permit students to repay the loan after termination of at least half-time studies at the University. Interest will not accrue on the loans while the borrowers are enrolled on at least a half-time basis. Information regarding loan amounts and terms can be obtained from the Financial Aid Office.

### **Federal Work-Study Program**

A student who needs a job to help pay for college expenses may be eligible for employment through the Federal Work-Study Program. Eligibility is based on financial need as determined by the FAFSA. Most participants are employed in positions with various University departments, but limited off-campus jobs with certain approved agencies are also available.

### **Aid Programs for Teachers and Vocational Nursing Students**

The Texas Education Coordinating Board administers various tuition assistance programs including programs for teachers and vocational nursing students. Further information about these programs may be obtained by contacting the Financial Aid Office and by accessing the Financial Aid web site.

### **Financial Counseling**

The Financial Aid Office provides financial or budgetary counseling for any and all students regardless of whether they qualify for other types of financial assistance.

### **Out-of-State Student Assistance**

Several states offer aid to their students attending schools in other states. Amounts and requirements for this assistance vary greatly. Further information can be obtained from the home-state aid agency.

### **Veterans' Assistance**

Contact the Registrar's Office for information concerning eligibility for and payment of VA benefits and other matters for veterans attending or planning to attend UT Arlington.

## **Fellowships and Scholarships**

**252 Davis Hall | Box 19199 | 817.272.2197 | <http://www.uta.edu/ses/fao/>**

The University of Texas at Arlington provides a variety of scholarship programs for students who have demonstrated exceptional academic achievement. UT Arlington also offers a number of endowed scholarships that are administered by a school, department or program. Graduate scholarships are awarded on the basis of scholastic excellence and adequate preparation for graduate study in the student's chosen field, as shown by the student's academic record. Scholarship eligibility criteria include admission into a degree program, enrollment in coursework leading to the degree, reasonable progress in the degree program, good academic standing, GPA, and in some cases, test scores, references and personal statements. Test scores are not used as the sole criterion for awarding scholarships or the primary criterion for denying scholarship to applicants. There are additional specific qualifications for scholarships in various areas of study. Students are encouraged to contact their school dean or department/program office to obtain information about eligibility criteria and scholarships awarded in the student's area of study.

In addition to the specific qualifications required for various competitive scholarships awarded by the University, the committee responsible for selection of a given scholarship may consider such factors as leadership, community involvement and financial need. State law and the Rules and Regulations of the Board of Regents of The University of Texas System require that any scholarship and/or fellowship be approved by the appropriate scholarship, loans and awards committee (graduate or undergraduate). For graduate students, the Dean of Graduate Studies serves as the committee chair. Scholarship funds have been contributed by individual donors, UT Arlington alumni, corporations, government agencies and other entities to recognize and reward academic excellence.

## Assistantships

Standard research and teaching assistantships available in most departments can be held only by students admitted unconditionally or on probation to Graduate School. Recipients of the Enhanced GTA and the STEM Fellowship can be admitted unconditionally only. Students admitted provisionally or students who are on academic probation are not eligible for assistantships. Prospective graduate students should contact the appropriate department chairperson for further information. To be continued on a research or teaching assistantship, a student must be in good standing and have performed assigned duties satisfactorily in the preceding semesters as determined by the respective department. Consult the catalog section on General Graduate School Regulations and Information for regulations regarding registration and responsibility of graduate assistants.

Before being appointed to an assistantship at UT Arlington, a student whose native language is not English must demonstrate English proficiency. The preferred method to demonstrate English proficiency is to submit an acceptable score of at least 23 on the TOEFL speaking subtest, or a score of at least 7 on the speaking section of the IELTS, or take and pass the UTA Developmental English course. The TOEFL or IELTS score should be sent directly to UT Arlington by ETS or IELTS. Score reports submitted directly by the student or those marked "Student Copy" or "Applicant's Copy" are not considered official and will not be accepted by the University. The English proficiency requirement will be waived for non-native speakers of English who possess a bachelor's degree from an accredited U.S. institution. The TOEFL and IELTS are administered at test centers around the world. See the catalog entry titled Application Documentation Requirements in the Admission Requirements and Procedures section for further information.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)



# 2013-2014 Graduate Catalog

- [Home](#)
- [Degree Requirements](#)
- [Fields of Study](#)
- [Admissions Requirements & Procedures](#)
- [General Information & Regulations](#)
- [Board of Regents](#)
- [Graduate School](#)
- [Directory of UT Arlington Offices](#)
- [Regulations](#)
- [Tuition & Fees](#)
- [Financial Aid](#)
- [Student Services](#)
- [Graduate Calendar](#)
- [Graduate Faculty](#)
- [Table of Contents](#)
- [Index](#)

## Student Services

### [Housing](#)

### [Health Services](#)

- [Services Available](#)

### [Bookstore](#)

### [Counseling Services](#)

- [Personal Counseling](#)
- [Academic Counseling](#)
- [Career Development](#)

### [Assessment Services](#)

### [Career Services](#)

- [Career Services Locations](#)
- [Service Learning](#)

### [The Office of International Education](#)

### [Student Legal Services](#)

### [Testing Services](#)

### [YWCA Child Development Center](#)

### [Multicultural Affairs](#)

### [Office of Information Technology \(OIT\)](#)

### [Disability Services \(Office for Students with Disabilities\)](#)

### [Department of Campus Recreation](#)

### [Bursar Services](#)

### [MavMail and MavMail Newsletter](#)

### [Police Department](#)

- [Assistance Based on Need](#)
- [Financial Counseling](#)
- [Out-of-State Student Assistance](#)
- [Veterans' Assistance](#)



## Housing

**210 University Center | Box 19349 | 817.272.2791 | [www.uta.edu/housing](http://www.uta.edu/housing)**

The University owns and operates residence halls, apartments, and houses for UT Arlington students. Residence hall features vary by community. However, all residence hall students enjoy a double or private room on campus that includes Internet, cable TV, and metro phone service, and staff who live on site. Nineteen on-campus apartment communities and 19 houses are available to students as well. For more information about University-owned and managed housing, call 817.272.2791 or visit [www.uta.edu/housing](http://www.uta.edu/housing). Online applications are available on the Web site as well.

Centennial Court, a privately-owned, apartment-style community for UT Arlington students, is also located on the UT Arlington campus. Call 817-436-4800 for more information about Centennial Court.

## Health Services

**605 S. West Street | Box 19329 | 817.272.2771 | [www.uta.edu/healthservices](http://www.uta.edu/healthservices)**

UT Arlington Health Services, under the direction of the Vice President for Administration and Campus Operations, is an ambulatory health care facility fully accredited by the Accreditation Association for Ambulatory Health Care, Inc. Health Services strives to maintain the optimum physical and emotional health of UT Arlington students by providing quality, accessible, comprehensive and cost-effective primary health care.

In addition to a general medicine clinic, Health Services houses a pharmacy, laboratory, radiology department, mental health clinic, women's health clinic, immunization clinic, and a health promotion and substance abuse prevention office. Complementing efforts of the professional staff is a peer education program that prepares and trains students to educate the University community and surrounding communities about healthy lifestyles, including information on topics such as substance abuse, eating disorders, healthy relationships, acquaintance rape, sexually-transmitted infections, HIV/AIDS, and stress. In addition, there is a Student Health Advisory Committee composed of students who act as a liaison between Health Services administrators and the UT Arlington student body concerning health care issues.

Health care is available to all enrolled students. Student employees, such as GTAs, GRAs, TAs, and RAs, may utilize Health Services as students. Access to Health Services is by appointment only. This is intended to avoid potentially long waiting times experienced under a walk-in system. Access to the Immunization Clinic and Pharmacy does not require an appointment.

**Staffing:** The staff includes full-time physicians, nurse practitioners, registered nurses, pharmacists, laboratory and x-ray technologists, clinical psychologists, psychiatric nurse practitioners, health promotion and substance abuse prevention educators and support personnel. Health care is available at Health Services during those times when the University is open. Services are not available during scheduled University holidays. During periods of closure, students are financially responsible and must arrange payment for medical care received from another source.

## Services Available

**Medical Clinic:** Two Board certified family practice physicians, four nurse practitioners, and four registered nurses operate out of eight exam rooms. They provide a wide range of urgent care services as well as limited follow-up care for eligible students.

**Allergy-Antigen Injections:** If students wish to receive allergy-antigen injections, they must make an appointment with the senior physician prior to beginning allergy injections at Health Services. Patients are responsible for bringing their own antigen with specific instructions from their allergist, and the first dose of the antigen must be administered by their allergist. Patients are responsible



for providing a medical history and allergy skin testing results from the ordering healthcare provider.

**Women's Clinic:** Diagnosis and treatment of gynecological problems, contraceptive advice, routine Pap smears and breast examinations are performed by nurse practitioners with specialized training in women's health.

**Mental Health:** A variety of mental health services are available to eligible students. Individuals may receive help with problems in daily living or mental health concerns such as depression, stress, grief reactions, interpersonal problems, anxiety, phobias, eating disorders and psychoses. Appointments can be made with the office staff and no referral is necessary. When indicated, psychological testing is available to help gain increased understanding about a patient's functioning. Psychiatric consultation is also available when questions concerning medication or hospitalization are an issue. Referrals to appropriate community mental health agencies or other professionals may also be made. Comprehensive assessment and testing for ADHD and learning disabilities is available. Treatment recommendations and appropriate referrals are made when indicated.

**Laboratory:** Accredited by the Commission on Office Laboratory Accreditation (COLA), the laboratory provides a wide range of laboratory testing as well as testing for sexually transmitted infections. Outside physician orders for laboratory examinations are accepted. HIV/AIDS testing requires pre and post-test counseling.

**Pharmacy:** Most medications are purchased at a state-contracted rate and generic medications are used whenever possible. Patients have the option of bringing outside prescriptions for filling in our pharmacy. A separate prescription counseling room is available for patients to receive discreet, confidential counseling regarding prescriptions or over-the-counter medication. The pharmacy also stocks a variety of non-prescription and over-the-counter products such as pain relievers, cough and cold remedies, vitamins, antacids, laxatives, topical skin care medications, feminine hygiene products, condoms, bandages and wound-care supplies.

**X-Ray:** Health Services performs routine x-rays. Digital images are sent for reading to a local radiologist who returns the results to us in about 48 hours.

**Medical Records:** As of July 2009, Health Services made a complete transition from paper medical charts to an electronic medical records system in accordance with the American Recovery and Reinvestment Act. All medical records are protected under patient/physician confidentiality provisions, only the patient has access to their records. Records will not be released to anyone without written authorization from the patient or as provided by law.

**HIV/AIDS:** Education and information on HIV/AIDS are available at no charge and may be given in a one-on-one setting or to campus groups. Testing for HIV/AIDS is available and requires pre- and post-test counseling appointments. Clients are referred to appropriate off-campus facilities, if needed. The UT Arlington brochure, "*Policy and Guidelines on Human Immunodeficiency Virus Infection (HIV) and Acquired Immune Deficiency Syndrome (AIDS) and Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV)*" is available at Health Services.

**Bacterial Meningitis:** Meningitis, a rare but potentially fatal bacterial infection that affects the brain and spinal cord, strikes about 3,000 Americans each year. Information about meningitis and its symptoms is available on the [Health Services website](#) and in the printed Schedule of Classes. As of January 1st, 2012, incoming Texas college students under 30 years old must be immunized against bacterial meningitis before they enroll in an institution of higher education.

State law mandates that first-time college students, students transferring from another institution and students who are re-enrolling following a break of at least one fall or spring semester be inoculated against the illness. Students who plan to audit a course also must comply with the law, SB 1107 passed during the 82<sup>nd</sup> Legislative Session.

It is imperative that students who plan to enroll in UT Arlington be vaccinated as soon as possible. Under the law, new college students must have received the vaccine within the past five years. Proof of inoculation is required 10 days before the start of the semester as the vaccine is

considered effective several days after it is administered. Limited exemptions are specified in state law. ([51.9192](#) of the Texas Education Code; Section [21.610](#) of the Texas Administrative Code; et seq)

**Health Promotion and Substance Abuse Prevention:** Health Services offers health education, programs and materials to assist students to make appropriate decisions concerning alcohol, drugs, sexual health, nutrition, wellness and other health-related topics. Several awareness events are held throughout the year promoting health and wellness, including an annual Health Fair held each spring term.

In support of the University's [tobacco-free policy](#), Health Services offers tobacco cessation resources and support. [Fresh Start from Tobacco](#) classes are free and open to all faculty, staff and students who are ready to quit. Registration is required. A brochure on the University Policy regarding drugs and alcohol, [Illicit Drugs and Alcohol Abuse](#), is available at Health Services.

**Student Health Advisory Committee:** This organization is sponsored by Health Services and is composed of students who act as a liaison between Health Services administrators and the University student body concerning health care issues. The committee provides feedback on health-related issues and policies from a student perspective and conducts special events throughout the academic year to promote health awareness. Membership is open to all majors.

**SMART Peer Educators:** The SMART Peer Educator Program is a University and community-based network focusing on comprehensive health and safety initiatives. Peer educators actively promote student and young adult-based, campus and community-wide leadership on healthy and safe lifestyle decisions concerning alcohol abuse, tobacco use, illegal drug use, unhealthy sexual practices and other high-risk behaviors. Peer educators receive extensive and rigorous training before working with students and offering peer counseling.

#### **Patient Rights:**

- To receive high quality, accessible, culturally sensitive medical care.
- To be treated with respect consideration, privacy, and dignity.
- To know one's provider's name, specialty, and credentials.
- To decline evaluation and/or treatment by a health care professional in training.
- To specify gender preference, and to change provider if requested, depending on availability.
- To receive complete, current information regarding diagnosis, treatment, and prognosis in understandable terms.
- To be given the opportunity to participate in decisions involving your health care.
- To be informed of the benefits, possible risks or side effects of treatment, alternate methods, and the medical consequences of treatment.
- To express any dissatisfaction to one's provider, to the managers of Health Services, or to the Director of Health Services.
- To be informed of the right to refuse to participate in any research conducted at Health Services.
- To have records and disclosures treated confidentially and, except when required by law, be given the opportunity to approve or refuse their release.

**Transportation:** Health Services is an out-patient facility, and, as such, provides only ambulatory medical services. Patients are responsible for their own transportation to Health Services. For true emergencies, or when the seriousness of the patient's condition is uncertain, call the University Police at 817-272-3003. The police will dispatch officers to the site, and call an ambulance, if needed. These officers are trained in CPR and first aid and can stabilize the patient until an ambulance arrives. This procedure should be followed even when Health Services is open.

**Indebtedness:** It is the student's responsibility to satisfy indebtedness to Health Services with reasonable promptness. Upon payment, receipts will be issued to be used by the student for submitting claims to personal insurance companies. Health Services will file claims for patients with the Student Health Insurance Plan.

**Health Insurance:** Health insurance is not required in order to receive healthcare at Health Services; however, all students are strongly urged to have adequate medical insurance coverage. Health Services is not equipped to perform extensive diagnostic procedures and services such as those offered by a general hospital, which do require medical insurance coverage. Students on non-immigrant visas are required to carry health insurance and must show proof of coverage at the time of registration. An optional system-wide Student Health Insurance Plan is available through an insurance carrier by contract with the University. It is the only insurance accepted at Health Services. Students with private health insurance will receive a receipt to submit a claim with their insurance company; Health Services can only file claims for patients with the Student Health Insurance Plan. For more information about the Student Health Insurance Plan, contact Health Services at 817.272.2771. [Insurance brochures and applications](#) are available online.

## Bookstore

400 S. Pecan St. 817.272.2785

[www.bkstr.com/Home/10001-10645-1?demoKey=d](http://www.bkstr.com/Home/10001-10645-1?demoKey=d)

The UTA Bookstore offers textbooks, course materials, general books, computer products and more. Per Texas Education Code, Section 51.9705; 19 TAC 4.215 et seq, students should be aware that a student of this institution is not under any obligation to purchase a textbook from this source. The same textbook may also be available from an independent retailer, including an online retailer. There are several independent retailers located in the area and a growing number of online options exist.

## Counseling Services

216 Davis Hall | Box 19156 | 817.272.3671 | [www.uta.edu/counseling](http://www.uta.edu/counseling)

Counseling Services is available to help students grow as whole individuals. UT Arlington counselors assist students in

- personal growth and development
- improving academic performance
- career planning and decision making
- leading healthy lifestyles
- improving relationships

Students may meet one-on-one with counselors, attend workshops or meet in groups. Services are available to enrolled UT Arlington students at no charge. Workshop topics vary by semester and may include Enhancing Self-Esteem, Stress Management, Relaxation Training, Healthy Relationships, Anger Management, Time Management, Improving Your Study Skills and Career Exploration. Group counseling themes include General Group Counseling, Advanced Relaxation Techniques, Assertiveness Skills Training and Career Exploration. Career assessments and workshops are available to help students gain greater awareness of their interests, values, personality, skills and abilities. A career library with computerized career assessments, books, magazines and other materials is available to help students conduct career-related research. You can access these services by scheduling an appointment with a counselor. Schedule an appointment by contacting Counseling Services at 817.272.3671. The Counseling Office is open 8 a.m.-7 p.m. every Monday and Thursday and 8 a.m.-5 p.m. on Tuesday, Wednesday and Friday. For more information, visit [www.uta.edu/counseling](http://www.uta.edu/counseling).

### Personal Counseling

Developing new life skills and perspectives, dealing with extraordinary life events, making personal decisions, and getting help with issues related to difficulties in adjustment, emotions, and interpersonal relationships.

### Academic Counseling

Individual sessions and group seminars are available to address a wide variety of issues including

academic skill building, reading improvement, test-taking strategies, study skills improvement, and time management. At times, we use the Learning and Study Skills Strategies Inventory (LASSI) as a way to assess your use of learning and study strategies.

## Career Development

Individual counseling is available to assist students in the exploration of their interests, abilities, career-related skills, work values, career preparation, resume preparation, and job searches. Students are often encouraged to take the Myers-Briggs Type Indicator (MBTI) and the Strong Interest Inventory as ways of assessing personality characteristics and interests that may suggest suitable career directions. Choices is a computer program that students can use to gather information about many majors, schools, and occupations.

## Assessment Services

201 Davis Hall | Box 19156 | 817.272.2362 | [www.uta.edu/testing](http://www.uta.edu/testing)

The following tests are given on national test dates: Graduate Record Examination (GRE) Subject Test and Writing Assessment, Law School Admission Test (LSAT) and the Medical College Admission Test (MCAT). The Miller Analogies Test is scheduled once per month. Specialized tests of aptitudes, interests and abilities are also given in conjunction with Counseling Services.

## Career Services

Career Services assists students and alumni in finding full- or part-time, internship and co-op employment opportunities. Services provided include career development workshops, job listings, résumé referral, on-campus employment interviews, career days and information on careers, employers and job search techniques.

Career Services has three offices across campus to better serve UT Arlington students and employers.

- **Business Career Services** offers part-time, full-time and internship opportunities to students and alumni.
- **Student Employment Services** offers non-degree-required part-time and full-time opportunities to currently enrolled students in all degree programs. In addition, work-study positions are posted for off-campus employment.
- **University Career Services** offers full-time degreed opportunities to new graduate students and alumni in all degree programs.

## Career Services Locations

**Web site:** [hireamaverick.uta.edu](http://hireamaverick.uta.edu)

**University Career Services:** Room 216, Davis Hall, 817.272.2932

**Business Career Services:** Room 106, Business Bldg., 817.272.5201

**Student Employment Services:** Room 140I, University Center, 817.272.2895

## Service Learning

B18 Davis Hall | Box 19124 | 817.272.2124 | [www.uta.edu/servicelearning/](http://www.uta.edu/servicelearning/)

UT Arlington and the Center for Community Service Learning believe in the role of higher education in preparing students for life in a democratic, civilized society and in educating students who will become engaged citizens and serve their community. Since its founding in fall 2001, the Center for Community Service Learning has been providing service-learning opportunities to students and faculty at UT Arlington.

The center (1) develops and supports opportunities for students and faculty to integrate academic study with community service; (2) helps faculty and students with service-learning placements, faculty development, curriculum development and assessment; (3) houses a service-learning resource library and a database of community agencies; and (4) administers faculty development grants, faculty and student service-learning awards and student service scholarships. Contact: Dr.

Shirley Theriot, director, [theriot@uta.edu](mailto:theriot@uta.edu), 817.272.2124, or Sharon Hughlett at [hughlett@uta.edu](mailto:hughlett@uta.edu).

## **The Office of International Education**

**Swift Center, 1022 UTA Blvd | Box 19028 | 817.272.2355 | [www.uta.edu/oie](http://www.uta.edu/oie)**

The Office of International Education (OIE) serves as general coordinator of the University's international contacts and programs, and seeks to promote, support and assist international activities throughout the University. The OIE serves more than 2,500 students and 100 scholars in non-immigrant status, U.S. students wishing to study abroad, and academic units who hire non-immigrant faculty and researchers.

The Student and Scholar Services area provides programs, consultation and documentation in the area of immigration and federal regulations. International students may take advantage of counseling on personal, academic, and financial issues through one-on-one sessions or through activities such as international student discussion groups, special workshops on immigration and other topics of interest. The International Programs area plans, organizes, and facilitates mandatory orientations for new international students, an international student discussion group, a friendship program, an international spouse club, an international coffee hour for the UT Arlington community, and workshops of interest to students. The tradition of International Week in the spring is facilitated through the International Student Organization.

The Study Abroad office offers opportunities for credit-bearing study through exchange programs in a number of different countries. Language and cultural studies can earn resident credit undertaken on faculty-led and affiliated programs in more than 40 countries. Students interested in study abroad opportunities, scholarship, travel and work opportunities abroad will find information at the OIE in Swift Center or by visiting [www.uta.edu/oie](http://www.uta.edu/oie).

## **Student Legal Services**

**Lower Level, University Center | Box 19355 | 817.272.3771 | <http://www.uta.edu/attorney/>**

A licensed attorney is employed by the University and available to advise and consult with all currently enrolled students who have paid the Student Service Fee. The attorney may advise the student regarding personal legal problems and concerns.

Areas frequently discussed with the attorney include landlord-tenant disputes, family law matters, contractual controversies, consumer protection questions, traffic accidents and minor criminal matters. Concerns regarding other legal matters may require additional research or referral, at the discretion of the attorney. Academic matters and other problems or concerns involving UT Arlington are addressed in various policies and procedures. Therefore, the attorney may not represent the student in any legal or administrative proceedings or offer advice pertaining to any legal topic involving the University or another enrolled student.

Students must bring their Mav Express card to the appointment for verification of current enrollment.

## **Testing Services**

**201 Davis Hall | 817.272.2362 | [www.uta.edu/testing](http://www.uta.edu/testing)**

The Testing Services Office provides information to help students identify tests they may need to take for graduate admission or demonstrating proficiency in English.

The Testing Services Office has information on the following tests:

- Admissions Tests: Graduate Record Exam (GRE) and the Law School Admissions Test (LSAT).
- The Miller Analogies Test may be taken at Testing Services. Specialized tests of aptitudes, interests and abilities are given in Counseling Services.

For more information access [www.uta.edu/testing](http://www.uta.edu/testing) or call 817.272.2362.



## **YWCA Child Development Center**

**106 W. 6th St. (corner of 6th and Speer) | 817.272.1135**

The YWCA Child Development Center is operated by the YWCA of Fort Worth and Tarrant County and offers full-time infant, toddler and preschool child care. Part-time care can be scheduled for children of UT Arlington students. The center is open from 6:30 a.m. to 6 p.m. Sliding scale fees are available for children of UT Arlington students. The center is accredited by NAEYC (National Association for the Education of Young Children). For enrollment information, call 817-272-1135.

## **Multicultural Affairs**

**Lower Level, University Center | Box 19353 | 817.272.2099 | [Multicultural Services](#)**

**Mission Statement:** The mission of Multicultural Affairs is to encourage, foster and support an academic, social and cultural atmosphere conducive to the needs of all students. While advocating cultural diversity and diversity of opinion, Multicultural Affairs embraces individuals from all backgrounds and provides cultural programming, diversity training, recruitment initiatives, and retention strategies to create an environment of academic success and cultural awareness, empowering students with the skills necessary to establish a solid foundation as they prepare to leave The University of Texas at Arlington. To accomplish this mission, Multicultural Affairs provides opportunities to attend cultural programming, seminars, and leadership training. By completing our mission objectives, we enhance the academic and the social skills necessary to become successful members of society.

The motto is "Empower the Leader, Strengthen the Community!"

Multicultural Affairs is composed of two complementary units: Multicultural Affairs and Multicultural Outreach. Together they offer cultural appreciation activities, diversity training workshops, leadership development aimed at creating an environment of academic success and cultural awareness. Rich cultural diversity is reflected in the number and variety of cultural student organizations on campus. Visit the Web site to get connected to more than 30 multicultural student groups that include culturally based, service based, fraternity and sorority, LGBT, dance/performance groups, and spiritually based organizations. As part of the mission of developing leaders prepared to be successful for a global society, the entire campus community is encouraged to take advantage of the services

All UT Arlington students are encouraged to attend the variety of programs. Activities include guest speakers, special performances, conferences, leadership training. Be sure to enjoy events for:

- Maversity! Diversity leadership training
- Diversity Lecture Series
- Hispanic Heritage Month
- Asian Awareness Month
- Native American Week
- Black History Month
- Semana de Cultura
- Women's History Month
- Diversity Week
- For complete listing visit our online calendar via our Web site

The office hours are Monday-Friday, 8 a.m.-5 p.m. For more information, contact the Office of Multicultural Affairs, at 817.272.2099 or visit [www.uta.edu/multicultural](http://www.uta.edu/multicultural).

## **Office of Information Technology (OIT)**

**B51 Davis Hall | Box 19318 | 817.272.2271 | [www.uta.edu/oit](http://www.uta.edu/oit)**

The Office of Information Technology is composed of a diverse group of people working to meet the technological needs of the UT Arlington campus community. OIT provides high-speed data network and computing resources for campus-wide instructional and research activities, as well as

University business operations. Computing resources provided by OIT include 10 student computer labs, accounts on multi-user systems that provide access to a web-based file management and file sharing utility called MavSpace, a personal directory on a campus server, compilers, programming tools, e-mail, online documentation, and Internet access and online student services. In-house IT professionals are available to provide assistance to students, faculty and staff.

OIT's 10 on-campus computer labs are strategically located throughout the campus to provide computer resources for all students. Labs are located within the Architecture Building, Business Building, Central Library (three facilities), Engineering Laboratory Building, Fine Arts Building, Nedderman Hall, Ransom Hall and University Hall. All of the facilities are networked and provide access to both UT Arlington systems and the Internet. These facilities allow students laser printing; several feature color printing, scanning, and classroom facilities. The premier facility, Ransom Hall, is open 24 hours a day, seven days a week. This three-story computing facility offers PCs running Microsoft Windows and Apple MacOS. Ransom Hall also features numerous multimedia and networked computer classrooms for teaching purposes.

OIT supports multi-user large centralized as well as distributed client/server computing resources. The large centralized resources consist of:

- A High Performance Computing cluster, dedicated to UT Arlington's researchers, consisting of high speed servers running Red Hat Enterprise Linux. Numerous scientific and engineering applications are available. Accounts on this system are offered to tenured or tenure-track faculty pursuing research for the University.
- Research and teaching activities are supported on servers running Red Hat Enterprise Linux with various compilers, programming tools, utilities, database management systems and statistical analysis packages. Accounts on these systems are available upon request to all UT Arlington students, faculty and staff.

The distributed client/server environment supports thousands of computers located on the desktops of UT Arlington's faculty and staff offices as well as in the student computer labs. Distributed client/server resources consist of many IBM Netfinity and Dell Power Edge servers running Microsoft Windows to serve as Exchange, SQL, SMS, and print/file servers. Together, these servers support the University's e-mail, desktop productivity and departmental applications.

OIT provides a high-speed data network within the UT Arlington campus as well as interconnections to major regional, national and international networks (e.g., Internet, Internet2, THEnet, LEARN, NLR, etc.). Wireless network access is available throughout the public areas of the campus, including central public areas of the five UT Arlington residence halls.

OIT supports the enterprise administrative systems utilized by academic and administrative departments across campus, such as Graduate and Undergraduate Recruiting and Admissions, Academic Advising, Registrar, Student Records, Financial Aid, Student Financials, Graduate School, Police and Bursar. All students, and most faculty and staff, will interact with the enterprise administrative systems through the use of the new MyMav system, a fully functional, totally integrated Web-based system available 24 hours a day, 7 days a week.

Additional information about OIT's computers, network and student computing facilities, as well as access to documentation and staff consultants is available at the Computing Services Help Desk on the first floor of the Central Library (817.272.2208, [helpdesk@uta.edu](mailto:helpdesk@uta.edu), [www.uta.edu/helpdesk](http://www.uta.edu/helpdesk)). All OIT labs and resources are available to current UT Arlington students, faculty and staff.

## **Disability Services (Office for Students with Disabilities)**

**University Hall, Room 102 | Box 19510 | 817.272.3364 | TTY 800.RELAY TX |**

[www.uta.edu/disability](http://www.uta.edu/disability)

The Office for Students with Disabilities (OSD) at UT Arlington is charged with ensuring full inclusion of students with disabilities in all programs and activities offered at UT Arlington. In compliance with the Americans with Disabilities Act of 1990, OSD verifies all physical and cognitive disabilities in order to specify the appropriate disability-specific accommodations that will

assist students in successfully completing their academic objectives. All UT Arlington students with disabilities requiring accommodations should contact OSD at 817.272.3364 (voice) or 800.RELAY TX (TDD) or they may visit the office in 102 University Hall, Monday-Friday, 8 a.m. to 5 p.m. Any academic accommodations relating to a disabling condition must originate with the Office for Students with Disabilities. For more information regarding services or documentation requirements, please visit [www.uta.edu/disability](http://www.uta.edu/disability).

## Department of Campus Recreation

500 W. Nedderman Drive | Box 19268 | 817.272.3277 | [www.uta.edu/campusrec](http://www.uta.edu/campusrec)

The Department of Campus Recreation provides a diverse offering of recreational and leisure experiences for students. More than 80 activities in competitive and recreational areas, team, individual and co-recreational, are scheduled throughout the year. The Campus Recreation office is located in Room 100 of the Maverick Activities Center (MAC); the phone number is 817.272.3277. Visit the Web site at [www.uta.edu/campusrec](http://www.uta.edu/campusrec) for more information on any of the programs listed.

The Department of Campus Recreation is comprised of five areas:

- Students are welcome to drop by the MAC or the Campus Recreation Fields Complex for **Informal Recreation** and create their own fun. They may choose from a variety of activities such as, racquetball, basketball, volleyball, badminton, table tennis and indoor track. The MAC is a state-of-the-art \$34.5 million recreation facility where students, faculty, staff and alumni can continue to be engaged in UT Arlington's campus life. The MAC offers 20,000 sq. ft., weight and fitness room, 4 multipurpose rooms, 5 basketball courts, 8 volleyball courts, an indoor soccer gym, 5 racquetball courts, 10 badminton courts, a game room, a computer café, men's and women's locker rooms and much more. The fitness center cardiovascular machines, locker/shower facilities and smoothie bar/lounge are also available. Students are able to access the MAC for free with a valid Mav Express card. For more information on the MAC visit [www.uta.edu/mac](http://www.uta.edu/mac).
- **Intramural Sports** provides opportunities for participation in recreational and competitive activities. Divisions for men, women, and co-recreational teams are offered in team activities and in many individual/dual sports. Activities include flag football, bowling, soccer, golf, table tennis, billiards and many more.
- **QUEST University Wellness** is designed to enhance personal wellness. Various programs are offered (some for a nominal fee) through QUEST, including group exercise classes, fitness testing, personal training, massage therapy, and nutrition assessments.
- The **Sport Clubs** program serves individual interests in different sports. Some clubs represent UT Arlington in intercollegiate competition and/or conduct activities such as practice and instruction. Membership guidelines vary. Some of the current clubs include men's and women's soccer, men's and women's volleyball, cycling, martial arts, lacrosse, roller hockey, pool team and adventure team.
- The **Aquatics** program provides swimming opportunities to the UT Arlington community. The indoor and outdoor pool allow for lap and recreational swimming all year long. The pools are located in the Physical Education Building at 801 Greek Row.
- The UT Arlington **Spirit Groups** consist of the Cheerleading Squad, Dance Squad and the Mascot. The groups join together in providing support for UT Arlington athletic teams and leading the University community in spirit. These athletes represent UT Arlington at the collegiate national championship during the year and host camps and clinics throughout the summer. For more information visit [www.uta.edu/spiritgroups](http://www.uta.edu/spiritgroups).

## Bursar Services

Rm. 130 Davis Hall | Box 19649 | 817.272.2172 | [Bursar Services](#)

- Payment of debts to the University
- Student account billing questions
- Enrollment loan applications
- Check cashing services



- Allan Saxe Loan Administration (\$50 maximum, 30-day repayment, \$0.25 service charge)

Any form of payment (Check, ACH, or Credit Card) that is returned unpaid can result in enrollment withdrawal and the following additional penalties:

- A \$25 fee for each returned or cancelled item
- Enrollment withdrawal plus financial responsibility
- A readmission bar
- Grades, official transcript, and diplomas will be held
- Loss of check writing privileges
- All other penalties and actions authorized by law

**Check Cashing:** A current University identification card and a driver's license are required to cash a personal check. A student may cash a personal check for an amount not to exceed \$25. A \$0.25 Check Cashing Charge will apply.

## **MavMail and MavMail Newsletter**

Every student at UT Arlington is issued a University e-mail account. Students are expected to regularly check their University e-mail account and UT Arlington considers e-mail an official means of communication. Various offices and faculty members may conduct official business via the UT Arlington e-mail account.

In addition to providing students with an e-mail account, UT Arlington sends a weekly newsletter called MavMail to each student's e-mail account. The MavMail newsletter lists campus events, important deadlines, and news related to the campus. Students are expected to read this newsletter.

If you have a question related to the University and do not know where to direct the question, you may contact MavMail. MavMail is designed to provide answers to questions, direct inquirers to the appropriate office(s), and forward suggestions or compliments to the correct individuals or offices. Staff members in the Office of the Provost provide responses after contacting appropriate individuals to gain answers to the questions posed.

## **Police Department**

**252 Davis Hall | Box 19199 | 817.272.3561**

**University Police Building | 700 S. Davis St. | Box 19229 | Non-Emergency 817.272.3381**

- Provides motorist assistance and patrols campus 24 hours a day
- Investigates traffic accidents
- Investigates, makes arrests, assists prosecution as necessary
- Conducts crime prevention programs
- Provides public service speakers for classes, clubs and special events
- Recovers, returns found and stolen property
- Provides parking decals, visitor hang tags, and rules and information
- Maintains and operates University shuttle bus services
- Provides escort services for personal safety as requested

## **Assistance Based on Need**

Students wishing to participate in any of the following financial aid programs should complete a Free Application for Federal Student Aid (FAFSA) as early as possible prior to their actual enrollment at the University. The funding process takes approximately four weeks for completion. Financial aid in these categories is generally limited to U.S. citizens or permanent residents. Funding for graduate courses is only available to students admitted to the Graduate School as "Regular" students. "Special" and "Transient" students are not eligible for these programs.

## **Grant Assistance**

Grant funding is available for graduate students through the Texas Public Education Grant (TPEG) and the Mav Grant. Grants are funds that normally do not require repayment. Recipients must have demonstrated financial need as verified through the completion of the FAFSA, and meet the published priority financial aid application deadline. TPEG funds are available to international students. Please contact the Financial Aid Office to complete an International TPEG form.

### **Graduate Loan Programs**

The Federal Perkins Loan, Federal Stafford Loan (subsidized and unsubsidized), and College Access Loan (CAL) are the primary sources of long-term loans available at UT Arlington. These programs include deferred repayment provisions that permit students to repay the loan after termination of at least half-time studies at the University. Interest will not accrue on the loans while the borrowers are enrolled on at least a half-time basis. Information regarding loan amounts and terms can be obtained from the Financial Aid Office.

### **Federal Work-Study Program**

A student who needs a job to help pay for college expenses may be eligible for employment through the Federal Work-Study Program. Eligibility is based on financial need as determined by the FAFSA. Most participants are employed in positions with various University departments, but limited off-campus jobs with certain approved agencies are also available.

### **Aid Programs for Teachers and Vocational Nursing Students**

The Texas Education Coordinating Board administers various tuition assistance programs including programs for teachers and vocational nursing students. Further information about these programs may be obtained by contacting the Financial Aid Office and by accessing the Financial Aid web site.

### **Financial Counseling**

The Financial Aid Office provides financial or budgetary counseling for any and all students regardless of whether they qualify for other types of financial assistance.

### **Out-of-State Student Assistance**

Several states offer aid to their students attending schools in other states. Amounts and requirements for this assistance vary greatly. Further information can be obtained from the home-state aid agency.

### **Veterans' Assistance**

Contact the Registrar's Office for information concerning eligibility for and payment of VA benefits and other matters for veterans attending or planning to attend UT Arlington.

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)

## RELATED LINKS

[Office of Records and Registration](#)

[Final Exam Schedule](#)

[Registration Timetable](#)

[Commencement](#)

## University Academic Calendar

### FALL 2015

- Apr 06** · Registration Begins for Fall Term - Regular Session
- Aug 26** · Registration Ends for Fall Term - Regular Session
- Aug 27** · First day of classes
- Aug 27** · Late Registration
- Aug 28** · Late Registration
- Aug 29** · Late Registration
- Aug 30** · Late Registration
- Aug 31** · Late Registration
- Sep 01** · Late Registration
- Sep 02** · Late Registration
- Sep 07** · Labor Day Holiday
- Sep 14** · Census Date
- Nov 04** · Last day to drop classes; submit requests to advisor prior to 4:00 pm
- Nov 09** · Registration begins for Spring 2016 Term
- Nov 26** · Thanksgiving Holidays
- Nov 27** · Thanksgiving Holidays
- Dec 09** · Last Day of Classes
- Dec 12** · Final exams (dept.)
- Dec 14** · Final Exams
- Dec 15** · Final Exams
- Dec 16** · Final Exams
- Dec 17** · Final Exams
- Dec 17** · Commencement Ceremonies
- Dec 18** · Final Exams
- Dec 18** · Commencement Ceremonies
- Dec 19** · Commencement Ceremonies

### MORE ACADEMIC CALENDARS

- [Fall 2015](#)
- [Winter 2015/2016](#)
- [Spring 2016](#)
- [Summer Interession 2016](#)
- [Summer 1st Five Weeks 2016](#)
- [Summer 11 Weeks 2016](#)
- [Summer 2nd Five Weeks 2016](#)

[view a list of all sessions »](#)



© 2015 The University of Texas at Arlington  
701 S. Nedderman Drive • Arlington, TX 76019 • 817-272-2011

[About Us](#)  
[Admissions](#)  
[Academics](#)  
[Research](#)

[Student Life](#)  
[Giving](#)  
[Athletics](#)  
[News Center](#)

[Careers](#) | [Contact Us](#) | [Emergency Preparedness](#) | [Site Policies](#)  
[Nondiscrimination and Title IX](#) | [Institutional Resume](#) | [UT System](#)  
[State of Texas](#) | [Statewide Search](#) | [Homeland Security](#) | [Report Fraud](#)



# 2013-2014 Graduate Catalog

[Home](#)[Degree Requirements](#)[Fields of Study](#)[Admissions Requirements & Procedures](#)[General Information & Regulations](#)[Graduate Calendar](#)[Graduate Faculty](#)[Table of Contents](#)[Index](#)

## Graduate Faculty

Sort this listing by [Name](#) | [School & Department](#).

- [School of Architecture](#)
- [College of Business](#)
- [College of Education and Health Professions](#)
- [College of Engineering](#)
- [College of Liberal Arts](#)
- [College of Nursing](#)
- [College of Science](#)
- [School of Social Work](#)
- [School of Urban and Public Affairs](#)

### School of Architecture

#### Architecture

##### Associate Dean

##### [Jones, David](#)

Start Year: 1970  
B.Arch., University of Oklahoma, 1970

##### Professor

##### [Baum, Edward](#)

Start Year: 1987  
M.Arch., Harvard University, 1964  
A.B., Harvard College, 1960

##### [Hamilton, Robert](#)

Start Year: 1973  
M.Arch., Massachusetts Institute of Technology, 1972  
B.Arch., Carnegie-Mellon University, 1969

##### [Kuhner, Craig](#)

Start Year: 1978  
M.Arch., 1970  
B.A., University of Pennsylvania, 1964

##### [McDermott, John](#)

Start Year: 1982  
M.A., University of Notre Dame, 1976  
B.Arch., University of Notre Dame, 1966

##### [Mehta, Madan](#)

Start Year: 1985  
Ph.D., University of Liverpool, 1974  
M.Bldg.S., University of Sydney, 1967

B.Arch., University of Roorkee, India, 1961

### **Associate Professor**

#### **Gintole, George**

Start Year: 1985  
M.Arch., Princeton University, 1978  
B.Arch., The Cooper Union, 1976

#### **Hopman, David**

Start Year: 2004  
M.L.A., University of Texas Arlington, 1998  
M.M., Southern Methodist University, 1982  
B.M., University of Memphis, 1980

#### **Maruszczak, John**

Start Year: 1982  
M.Arch., Princeton University, 1980  
B.Arch., The Cooper Union, 1975

#### **Quevedo, Steven**

Start Year: 1991  
M.Arch., University of Texas at Arlington, 1989  
B.S., University of Texas at Arlington, 1985

### **Senior Lecturer**

#### **Boswell, Bill**

Start Year: 1975  
M.Arch. and Urban Design, University of Colorado, 1972  
B.Arch., The University of Texas at Austin, 1969

### **Lecturer**

#### **Bass, Ogden**

Start Year: 1996  
M.S., Texas A&M; University, 1986  
M.U.P., Texas A&M; University, 1981  
B.S., Texas A&M; University, 1979

## **Landscape Architecture**

### **Associate Professor**

#### **Taylor, Pat**

Start Year: 1992  
Ph.D., The University of Texas at Austin, 1983  
M.S., Texas Tech University, 1969  
B.S., Texas Tech University, 1967

## **College of Business**

### **Accounting**

#### **Professor**

##### **Hall, Thomas**

Start Year: 1981  
Ph.D., Oklahoma State University, 1981  
M.P.A., The University of Texas at Arlington, 1975  
B.B.A., The University of Texas at Arlington, 1974

##### **Ho, Li-Chin Jennifer**

Start Year: 1990  
Ph.D., The University of Texas at Austin, 1990  
M.P.A., The University of Texas at Austin, 1984  
B.B.A., National Taiwan University, 1981

##### **McConnell, Donald**

Start Year: 1978  
Ph.D., University of North Texas, 1981

M.S., Oklahoma State University, 1971  
B.S., Oklahoma State University, 1970

**Taylor, Martin**

Start Year: 1988  
Ph.D., The University of Texas at Austin, 1974  
M.B.A., The University of Texas at Austin, 1970  
B.Comm., University of Cape Town, 1966

**Tsay, Jeffrey**

Start Year: 1974  
Ph.D., University of Missouri, 1973  
M.A., University of Missouri, 1969  
B.B.A., National Chengchi University, 1966

**Associate Professor**

**Hall, Bethane**

Start Year: 1985  
Ph.D., University of North Texas, 1987  
M.P.A., The University of Texas at Arlington, 1978  
B.S., Texas A&M; University, 1975

**Mark, Richard**

Start Year: 1985  
L.L.M., University of Denver, 1977  
J.D., University of Colorado, 1974  
B.S., University of Colorado, 1971

**Skantz, Terrance**

Ph.D., Oklahoma State University, 1979  
M.S., University of Southern Miss., 1973  
B.S., University of Southern Miss., 1972

**Subramaniam, Chandra**

Start Year: 2003  
Ph.D., University of Minnesota, 1993  
B.Acct., University of Minnesota, 1984  
M.B.A., University of Minnesota, 1984  
B.Sc., University of Malaya, 1978

**Assistant Professor**

**Efendi, Jap**

Start Year: 2007  
Ph.D., Texas A&M; University, 2004  
M.S. Tax Accounting, Texas A&M; University, 1996  
B.B.A., Texas A&M; University, 1995

**Winterbotham, Glyn**

Start Year: 2007  
Ph.D., University of Oklahoma, 2007  
B.A., Oklahoma Christian University, 1999

**Assistant Adjunct Professor**

**Henderson, Sandra**

Ph.D., Auburn University, 2002  
M.Acc., Florida State University, 1993  
B.S., Albany State University, 1991

**Senior Lecturer**

**Repsis, John**

Start Year: 1987  
J.D., Southern Methodist University, 1979  
M.B.A., Southern Methodist University, 1979  
M.P.A., University of Texas at Arlington, 1979  
B.A., Northwestern University, 1975

**Lecturer**

**Andrews, Carly**

M.B.A., University of Texas at Arlington, 2001  
B.B.A., Baylor University, 1997

## Business Administration

### Assistant Dean

#### Mack, David

Start Year: 1997  
Ph.D., University of Texas at Arlington, 2000  
M.B.A., DePaul University, 1993  
B.S., St. John Fisher College, 1983

### Coordinator of International Programs

#### Chin, Pui-Ying

### Director

#### McGee, Melanie

### EMBA Executive Director

#### Ellis, James

### Associate Professor

#### Prater, Edmund

Start Year: 2001  
Ph.D., Georgia Institute of Technology, 1999  
M.S., Georgia Institute of Technology, 1996  
M.S., Georgia Institute of Technology, 1988  
B.S., Tennessee Technological University, 1986

## Economics

### Professor

#### Crowder, William

Start Year: 1992  
Ph.D., Arizona State University, 1992  
B.S., Arizona State University, 1987

#### Himarios, Daniel

Start Year: 1983  
Ph.D., Virginia Polytechnic Institute and State University, 1984  
M.A., Virginia Polytechnic Institute and State University, 1980  
B.A., National & Kapodistrian University of Athens, Greece, 1978

#### Meiners, Roger

Start Year: 1993  
J.D., University of Miami, 1978  
Ph.D., Virginia Polytechnic Institute, 1976  
M.A., University of Arizona, 1972  
B.A., Washington State University, 1970

#### Ward, Michael

Start Year: 2002  
Ph.D., University of Chicago, 1993  
M.A., University of Chicago, 1986  
B.A., University of California, Los Angeles, 1983

### Associate Professor

#### Choi, Chi Young

Ph.D., Ohio State University, 2000  
M.A., Ohio State University, 1996  
B.A., Kyungpook National University, Korea, 1990

#### Smallwood, Aaron

Start Year: 2006



Ph.D., Florida State University, 2001  
M.S., Florida State University, 2000  
B.S., Florida State University, 1995

**Yasar, Mahmut**

Start Year: 2007  
Ph.D., University of Illinois at Urbana-Champaign, 2002  
M.B.A., University of Illinois at Urbana-Champaign, 1997  
M.S.B.A., University of Illinois at Urbana-Champaign, 1996  
B.A., Ankara University, 1992

**Assistant Professor**

**Price, Joshua**

Ph.D., Cornell University, 2010  
M.A., Cornell University, 2009  
M.S., Cornell University, 2007  
B.A., Brigham Young University, 2005

**Spivey, Christy**

Ph.D., The University of Texas at Austin, 2006  
B.Ss., Tulane University, 1998

**Visiting Assistant Professor**

**Mostashari, Shalah**

Start Year: 2012  
Ph.D., University of Texas at Austin, 2010  
M.S., University of Texas at Austin, 2002  
B.A., Hollins University, 1992

**Clinical Professor**

**Himarios, Jane**

Start Year: 1985  
Ph.D., Virginia Polytechnic Institute & State University, 1988  
M.A., Virginia Polytechnic Institute & State University, 1981  
B.A., Winthrop College, 1979

**Associate Clinical Professor**

**Isengildina, Olga**

Start Year: 2012  
Ph.D., Mississippi State University, 2000  
M.S., Mississippi State University, 1996  
B.A., Tashkent State University, 1993

**Wunder, Timothy**

Ph.D., Colorado State University, 2003  
M.A., Colorado State University, 1998  
B.A., Western Washington University, 1993

**Finance and Real Estate**

**Professor**

**Diltz, John David**

Start Year: 1987  
Ph.D., University of Illinois, 1980  
M.S., University of Illinois, 1978  
B.S., Purdue University, 1976

**Associate Professor**

**Hayunga, Darren**

Start Year: 2006  
Ph.D., Louisiana State University, 2006  
M.B.A., The College of William and Mary, 1997  
B.A., Western Illinois University, 1988

**Sabherwal, Sanjiv**

Start Year: 2004

Ph.D., Georgia Institute of Technology, 2000  
M.B.A., University of Miami, 1990  
B.T., Indian Institute of Technology, New Delhi, 1987

**Sarkar, Salil**

Start Year: 1997  
Ph.D., Louisiana State University, 1991  
M.B.A., Northeast Louisiana University, 1987  
B.S., Indian Institute of Technology, 1977

**Assistant Professor**

**Adams, John**

Start Year: 2010  
Ph.D., Texas Tech, 2005

**Gormus, Necmettin**

Start Year: 2012  
Ph.D., UTA at Arlington, 2012  
M.S., Texas Tech University, 2004  
B.S., Texas Tech University, 1999

**Narayanasamy, Arun**

Start Year: 2012  
Ph.D., UTA at Arlington, 2012  
M.S., UTA of Arlington, 2007  
B.S., University of Madras India, 1999

**Assistant Adjunct Professor**

**Lowrance, Daniel**

Ph.D., Texas A&M; University, 2002  
M.B.A., The University of Texas at Arlington, 1997  
B.B.A., The University of Texas at Arlington, 1995

**Professor Emeritus**

**Apilado, Vincent**

Start Year: 1980  
Ph.D., University of Michigan, 1970  
M.B.A., University of Oregon, 1966  
B.S., University of Portland, 1959

**Clinical Professor**

**Forgey, Fred**

Start Year: 2009  
Ph.D., Texas Tech University, 1992  
M.B.A., University of North Texas, 1989  
B.B.A., University of Texas at Arlington, 1988

**Lecturer**

**Schwemer, Lee**

Start Year: 1989  
J.D., Texas Tech University School of Law, 1972  
B.B.A., University of Texas at Arlington, 1970

**Health Care Administration**

**Director**

**Wilhite, Demetria**

**Clinical Professor**

**West, Mike**

Start Year: 2002  
Ed.D., Nova Southeastern University, 1987  
M.S. Economics, University of North Texas, 1977  
B.S. Psychology, University of North Texas, 1970

## Information Systems & Operations Management

### Professor

#### Baker, Revenor

Start Year: 1972  
Ph.D., Texas A&M; University, 1971  
B.A., The University of Texas at Austin, 1964

#### Eakin, Mark

Start Year: 1980  
Ph.D., Texas A&M; University, 1980  
M.S., Texas A&M; University, 1977  
B.S., Tarleton State University, 1972

#### Frazier, Gregory

Start Year: 1997  
Ph.D., Texas A&M; University, 1989  
M.B.A., Texas A&M; University, 1985  
B.S., Texas A&M; University, 1984

#### Mahapatra, Radha

Start Year: 1998  
Ph.D., Texas A&M; University, 1994  
P.G.D.M., Indian Institute of Management, 1986  
B.S., Regional Engineering College, India, 1983

#### Raja, M K

Start Year: 1981  
M.S., University of Houston, 1978  
Ph.D., Texas Tech University, 1971  
M.E., Indian Institute of Technology, 1968  
B.E., University of Madras, 1966

#### Slinkman, Craig

Start Year: 1979  
Ph.D., University of Minnesota, 1984  
M.B.A., Bowling Green University, 1975  
B.S., Bowling Green University, 1974

#### Teng, James

Start Year: 2002  
M.S., University of Illinois, 1971  
Ph.D., University of Minnesota, 1971  
B.A., National Taiwan University, 1966

#### Whiteside, Mary

Start Year: 1984  
Ph.D., Texas Tech University, 1974  
M.S., Texas Tech University, 1966  
B.A., The University of Texas at Austin, 1965

### Associate Professor

#### Cannon, Alan

Start Year: 2003  
Ph.D., Clemson University, 1999  
M.B.A., Clemson University, 1995  
B.A., Clemson University, 1984

#### Nerur, Sridhar

Start Year: 2002  
Ph.D., The University of Texas at Arlington, 1994  
Post Graduate Diploma in Management, Indian Institute of Management, 1988  
B.Eng., Bangalore University, 1983

#### Prater, Edmund

Start Year: 2001  
Ph.D., Georgia Institute of Technology, 1999  
M.S., Georgia Institute of Technology, 1996  
M.S., Georgia Institute of Technology, 1988  
B.S., Tennessee Technological University, 1986

**Sikora, Riyaz**

Start Year: 2002  
Ph.D., University of Illinois at Urbana-Champaign, 1994  
B.Eng., Osmania University, 1987

**Wang, Jingguo**

Start Year: 2007  
Ph.D., State University of New York at Buffalo, 2007  
M.S., State University of New York at Buffalo, 2005  
B.S., Fudan University, 1998

**Zhang, Jie**

Start Year: 2007  
Ph.D., University of Rochester, NY, 2003  
M.S., University of Rochester, NY, 2001  
B.Eng., Tianjin University, China, 1997

**Senior Lecturer**

**Davis, Carolyn**

**Management**

**Professor**

**Bell, Myrtle**

Start Year: 1996  
Ph.D., The University of Texas at Arlington, 1996  
M.B.A., Louisiana State University, 1982  
B.B.A., University of Notre Dame, 1981

**Datta, Deepak**

Start Year: 2004  
B.Tech., Indian Institute of Technology  
M.B.A., Indian Institute of Management  
L.L.B., Calcutta University  
Ph.D., University of Pittsburgh

**Gray, David**

Start Year: 1973  
Ph.D., University of Massachusetts, 1974  
M.A., University of Iowa, 1969  
B.B.A., University of Iowa, 1967

**Quick, Jim**

Start Year: 1977  
Ph.D., University of Houston, 1977  
M.B.A., University of Houston, 1975  
A.B., Colgate University, 1968

**Rasheed, Abdul**

Start Year: 1988  
Ph.D., University of Pittsburgh, 1988  
P.G.D.M., Indian Institute of Management, 1981  
B.S., Kerala University, India, 1972

**Associate Professor**

**Benson, George**

Start Year: 2002  
Ph.D., University of Southern California, 2001  
M.P.P., Georgetown University, 1994  
B.A., Washington and Lee University, 1992

**Casper, Wendy**

Start Year: 2004  
Ph.D., George Mason University, 2000  
M.A., George Mason University, 1996  
B.S., Penn State University, 1989

**Khavul, Susanna**

Start Year: 2006

Ph.D., Boston University, 2001  
B.A., University of California Berkeley, 1991

**Lavelle, James**

Start Year: 2002  
Ph.D., University of Utah, 1999  
B.A., University of Washington, 1989

**Mcfadyen, Margaret**

Ph.D., Texas A&M University - Management, 2000  
M.B.A., Texas Tech University, 1981  
B.B.A., Texas Tech University - Marketing, 1980

**Mcgee, Jeffrey**

Start Year: 1995  
Ph.D., University of Georgia, 1992  
M.B.A., Emporia State University, 1986  
B.B.A., Southwestern College, 1985

**McMahan, Gary**

Start Year: 1996  
Ph.D., Texas A&M; University, 1993  
M.B.A., George Washington University, 1983  
B.S., Oakland University, 1981

**Nordtvedt, Liliana**

Start Year: 2004  
Ph.D., University of Memphis, 2005  
M.B.A., Indiana University of Pennsylvania, 1999  
B.S., Universidad de los Andes, 1998

**Assistant Professor**

**Butts, Marcus**

Ph.D., University of Georgia, 2007  
M.S., University of Georgia, 2003  
B.S., Texas A&M; University, 1998

**Yuan, Feirong**

**Assistant Clinical Professor**

**Baldwin, Janice**

**George, Beverly**

**Michalski, Jeanne**

**Wilensky, Terrance**

**Lecturer**

**Veit, Dennis**

**Marketing**

**Assistant Professor and Graduate Advisor of Marketing Department Ph.D. Program**

**Saini, Ritesh**

Start Year: 2009  
Ph.D., Universtiy of Pennsylvania - Wharton, 2008  
M.S., University of Pennsylvania, 2001  
B.Eng., MN Regional Engineering College, 1995

**Professor**

**Chonko, Lawrence**

Start Year: 2007  
Ph.D., University of Houston, 1978  
B.A., University of Houston, 1975  
B.S., Lehigh University, 1973

**Luo, Xueming**

Start Year: 2004  
D.B.A., Louisiana Tech University, 2003  
B.S., Hunan University, 1993

### **Associate Professor**

#### **Briggs, Elten**

Start Year: 2006  
Ph.D., University of Oklahoma, 2006  
B.A., Ouachita Baptist University, 1997

#### **Freling, Traci**

Start Year: 2007  
Ph.D., Texas A&M; University, 2001  
M.S., Texas A & M University, 1995  
B.S., Texas A & M University, 1992

#### **Grisaffe, Douglas**

Start Year: 2005  
Ph.D., Vanderbilt University, 1989  
M.S., Vanderbilt University, 1987  
B.S., Bowling Green State University, 1984

### **Assistant Professor**

#### **Janakiraman, Narayanan**

Start Year: 2012  
Ph.D., University of Pennsylvania, 2003  
B.A., Pondicherry Central University, 1995  
B.Eng., Government College of Technology, 1993

#### **Jaramillo, J Fernando**

#### **Khare, Adwait**

Start Year: 2010  
Ph.D., University of Pittsburgh, 2003  
M.S., Virginia Tech, 1997  
B.S., Centre for Environmental Planning, 1993  
B.Arch., Visvesvaraya Regional College of Engineering, 1990

#### **Yang, Zhiyong**

Start Year: 2007  
Ph.D., Concordia University, 2007  
B.A., Zhejiang University, 2002  
M.S., Zhejiang University, 1998  
B.S., N.China Electric Power University, 1990

### **Clinical Professor**

#### **Rogers, Robert**

Start Year: 2007  
Ph.D., Business Administration, University of Nebraska, 1979  
M.A., Marketing, University of Nebraska, 1973  
B.A., Latin American Studies, University of Nebraska, 1971

### **Associate Clinical Professor**

#### **Lacefield, Gary**

Start Year: 2002  
Ph.D., Texas A & M University, 1997  
M.A., Dallas Baptist University, 1992  
B.A., Dallas Baptist University, 1991

### **Assistant Clinical Professor**

#### **Richarme, Michael**

Start Year: 2006  
Ph.D., University of Texas at Arlington, 2006  
B.S., University of Pennsylvania, 1989  
M.A., University of Texas at Austin, 1979  
B.A., University of Texas at Arlington, 1977

## College of Education and Health Professions

### Educational Curriculum & Instruction

#### Professor

##### **Cavallo, Ann**

Start Year: 2006  
Ph.D., Syracuse University, 1991  
M.S., Syracuse University, 1988  
B.S., Niagara University, 1981

##### **Crow, Mary**

Ph.D., University of North Texas, 1970  
M.Ed., Texas Christian University, 1967  
B.A., Texas Christian University, 1956

##### **Kribs, Christopher**

Start Year: 1997  
Ph.D., University of Wisconsin at Madison, 1997  
M.S.E.E., Georgia Institute of Technology, 1991  
A.B., Duke University, 1989  
B.S.E.E., Duke University, 1988

##### **Milson, Andrew**

Start Year: 2010  
Ph.D., Univ. of Georgia, 1999  
M.Ed., Univ. of North Texas, 1995  
B.A., Univ. of north Texas, 1993

##### **Rosado, Luis**

Ed.D., Texas A&M; University at Kingsville, 1986  
M.Ed., Boston State College, 1980  
B.A., University of Puerto Rico, 1975

##### **Schwartz, Marc**

Start Year: 2007  
Ed.D., Harvard University, 2000  
M.Ed., University of New Hampshire, 1983  
B.S., University of New Hampshire, 1982

##### **Smith, John**

Start Year: 2008  
Ph.D., University of North Carolina at Chapel Hill, 1987  
M.A., University of Utah, 1980  
B.S., Brigham Young University, 1975

#### Associate Professor

##### **Lee, Joohi**

Ph.D., Indiana State University, 2004  
M.E.D., Duksung Womenas University, 1996  
B.A., Chong Shin University, 1994

##### **Leffingwell, Jon**

Start Year: 1971  
Ph.D., University of North Texas, 1971  
M.Ed., The University of North Texas, 1966  
B.S., The University of North Texas, 1963

##### **Tommerdahl, Jodi**

Start Year: 2010  
Ph.D., La Sorbonne, 2002  
D.E.A., Ecole des Hautes Etudes en Sciences Sociales, 1996  
M.A., University of London, 1994  
B.A., University of Minnesota, 1991

##### **Yoon, Jiyeon**

Start Year: 2012  
Ph.D., Indiana University, 2002  
B.S., Ewha Womens University, Seoul, Korea, 1991

## Assistant Professor

### Amaro-Jimenez, Carla

Start Year: 2008  
Ed.D., University of Cincinnati, 2008  
M.Ed., University of Cincinnati, 2003  
B.S., Universidad Latina de Costa Rica, 2001

### Brown, Amber

Start Year: 2008  
Ed.D., University of North Texas, 2008  
M.S., University of North Texas, 2004  
B.S.E., East Texas Baptist University, 1993

### Hungerford-Kresser, Holly

Start Year: 2008  
Ph.D., University of Texas, 2008  
M.A., University of Texas, 2000  
B.S., Baylor University, 1997

### Malaia, Evguenia

Start Year: 2011  
Ph.D., Purdue University, 2005  
M.S., Chuvash State Pedagogical University, Russia, 2005

### Martin, Leisa

Start Year: 2012  
Ph.D., Univ. of Oklahoma, 2003  
M.S., Florida International Univ., 1999  
B.S., Florida State Univ., 1992

### Pant, Mohan

Start Year: 2012  
Ph.D., Southern Illinois University Carbondale, 2011  
M.S., Southern Illinois University Carbondale, 2006  
M.S., Tribhuvan University Kathmandu, Nepal, 1995

### Pole, Kathryn

Start Year: 2012  
Ph.D., Texas Woman's University, 2006  
M.L.S., University of North Texas, 1982  
B.S., Stephen F. Austin State University, 1980

### Semingson, Peggy

Start Year: 2008  
Ph.D., University of Texas, 2008  
M.Ed., Texas State University, 2004  
B.A., University of California, Santa Barbara, 1996

## Educational Leadership and Policy Studies

### Professor

#### Gerlach, Jeanne

Start Year: 1997  
Ph.D., University of North Texas, 1992  
Ed.D., West Virginia University, 1985  
M.A., West Virginia University, 1979  
B.S., West Virginia State College, 1974

### Associate Professor

#### Ausbrooks, Carrie

Start Year: 2004  
Ph.D., University of North Texas, 1996  
M.Ed., University of North Texas, 1984  
B.B.A., University of North Texas, 1983

#### Hardy, James

Start Year: 2006  
Ph.D., University of North Texas, 1990  
M.Ed., Stephen F Austin, 1985



B.A., Stephen F Austin, 1981

**Mcclellan, Rhonda**

Ed.D., Oklahoma State University, 2002  
M.A., Oklahoma State University, 1997  
M.Ed., University of Central Oklahoma, 1992

**Wasserman, Lewis**

J.D., St. John's University School of Law, 1984  
Ph.D., Hofstra University, 1974  
M.A., Hofstra University, 1973  
B.A., Hofstra University, 1969

**Assistant Professor**

**Amah, Ifeoma**

Ph.D., University of California, Los Angeles, 2009  
B.A., University of California, Los Angeles, 2002

**Tobolowsky, Barbara**

Start Year: 2009  
Ph.D., University of California, Los Angeles, 2001  
M.A., University of California, Los Angeles, 1998  
M.A., Northwestern University, 1979  
B.S., University of Texas at Austin, 1976

**Assistant Clinical Professor**

**Johnson, Ernest**

Start Year: 1995  
Ed.D., Texas A&M; University, 1992  
M.Ed., The University of Texas at Austin, 1978  
B.A., Texas A&M; University, 1971

**Senior Lecturer**

**Gardner, Kent**

Start Year: 2005  
Ed.D., University of North Texas, 1990  
M.S., Oklahoma State University, 1967  
B.A., Oklahoma City University, 1963

**Lecturer**

**Smith, Harold**

Start Year: 1997  
Ed.D., Columbus University, 2000  
M.S., Eastern New Mexico University, 1967  
B.S., Northeastern Oklahoma State University, 1962

**Special Assistant**

**Caloss, Ronald**

Start Year: 1999  
Ed.D., Nova Southeastern University, 1984  
M.Ed., Our Lady of the Lake University, 1973  
B.A., St. Mary's University, 1966

**Kinesiology**

**Professor**

**Buckwalter, John**

Start Year: 2007  
Ph.D., University of Arkansas, 1995  
M.S., University of Arkansas, 1992  
B.S., Centenary College, 1991

**Fincher, A Louise**

Start Year: 2000  
Ed.D., University of Alabama, 1995  
M.S., Indiana State University, 1991

B.S., Stephen F. Austin State University, 1983

**McKeown, Barry**

Start Year: 1983  
Ph.D., University of Illinois, 1979  
M.S., South Dakota State University, 1967  
B.S., South Dakota State University, 1966

**Ricard, Mark**

Start Year: 2005  
Ph.D., Southern Illinois University, 1986  
M.A.T., Southeast Missouri State University, 1982  
B.S., University of Vermont, 1978

**Associate Professor**

**Mcdonough, Paul**

Start Year: 2007  
Ph.D., Florida State University, 2000  
M.S., Northeastern University, 1995  
B.S., University of Massachusetts, Boston, 1992

**Nelson, Larry**

**Trowbridge, Cynthia**

Start Year: 2004  
Ph.D., Brigham Young University, 2004  
M.S., Indiana State University, 1994  
B.S., University of Colorado, 1992

**Wilson, Judy**

Start Year: 2000  
Ph.D., Kent State University, 1984  
M.S., California Polytechnic University, 1978  
B.S., Pacific Union College, 1972

**Assistant Professor**

**Cacola, Priscila**

**Hargreaves, Jean**

**Keller, David**

Start Year: 2007  
Ph.D., University of North Texas Health Science Center at Fort Worth, 2004  
M.S., University of North Texas Health Science Center at Fort Worth, 2002  
B.S., University of Texas at Arlington, 2000

**Prisby, Rhonda**

Ph.D., Louisiana State University, 2002  
M.A., Kent State University, 1997  
B.A., Hiram College, 1992

**Ray, Christopher**

Start Year: 2007  
Ph.D., University of Georgia, 2004  
M.S., University of Tennessee, 1998  
B.S., University of Tennessee, 1997

**Resch, Jake**

B.S., South Dakota State University, 2003

**Assistant Clinical Professor**

**Krawietz, Paul**

Start Year: 2006  
Ed.D., Texas A & M University – Commerce, 2000  
M.A., Eastern Kentucky University, 1992  
B.S., Texas Tech University, 1990

**College of Engineering**

## Bioengineering

### Professor

#### Behbehani, Khosrow

Start Year: 1985  
Ph.D., University of Toledo, 1979  
M.S., Georgia Institute of Technology, 1975  
B.S., Louisiana State University, 1973

#### Chuong, Cheng-Jen

Start Year: 1985  
Ph.D., University of California at San Diego, 1981  
M.S., University of California at San Diego, 1977  
B.S., Cheng-Kung University, 1972

#### Liu, Hanli

Start Year: 1996  
Ph.D., Wake Forest University, 1992  
M.S., Wake Forest University, 1990  
B.S., Beijing Normal University, 1983

#### Tang, Liping

Ph.D., University of Minnesota, 1992  
M.S., National Taiwan University, 1988  
B.S., Tunghai University, 1986

### Associate Professor

#### Dave, Digant

Ph.D., Texas A&M; University, 1994  
M.S., Texas A&M; University, 1990

#### Nguyen, Kytai

Ph.D., Rice University, 2000  
B.S., The University of Minnesota, 1995

#### Romero-Ortega, Mario

Start Year: 2011  
Post Doctoral, Univ. Texas Southwestern Medical Ctr, 2002  
Post Doctoral, Univ. Texas Southwestern Medical Ctr, 1999  
Ph.D., Tulane University, 1997  
B.S., Guadalajara University, 1991

### Assistant Professor

#### Alexandrakis, Georgios

Start Year: 2006  
Ph.D., McMaster University, 2000  
M.Sc., McMaster University, 1996  
B.Sc., Oxford Univeristy, 1992

#### Kim, Young-Tae

Start Year: 2011  
Ph.D., University of Utah, 2004  
B.S., Yonsei University, KOREA, 1999

#### Yuan, Baohong

Start Year: 2011  
Ph.D., University of Connecticut, 2006  
Ph.D., Harbin Institute of Technology, 2002  
B.S., Harbin Institute of Technology, 1997

### Adjunct Professor

#### Eberhart, Robert

Start Year: 1978  
Ph.D., University of California at Berkeley, 1965  
A.B., Harvard University, 1958

## Civil Engineering

## Professor and Chair

### Abolmaali, Seyedali

Ph.D., University of Oklahoma, 1999  
M.S., University of Oklahoma, 1984  
B.S., University of Oklahoma, 1980

## Professor of Practice

### Najafi, Mohammad

M.S., Purdue University, 1988  
Ph.D., Louisiana Tech University, 1983  
B.S., Texas Tech University, 1976

## Professor

### Ardekani, Siamak

Start Year: 1989  
Ph.D., The University of Texas at Austin, 1984  
M.S., The University of Texas at Austin, 1981  
B.S., The University of Texas at Austin, 1980

### Hossain, Md

Start Year: 2004  
Ph.D., North Carolina State University, 2002  
M.E., Asian Institute of Technology, 1997  
B.Tech., Indian Institute of Technology, 1994

### Hoyos, Laureano

Start Year: 2000  
Ph.D., Georgia Institute of Technology, 1998  
M.S., Georgia Institute of Technology, 1996  
M.S., University of Puerto Rico - Mayaguez, 1993  
M.S., Universidad del Cauca - Columbia, 1991  
B.S., Universidad de la Costa - Columbia, 1988

### Puppala, Anand

Start Year: 1996  
Ph.D., Louisiana State University, 1993  
M.S., Indian Institute of Technology, 1987  
B.S., Andhra University, 1985

### Williams, James

Start Year: 1986  
Ph.D., The University of Texas at Austin, 1986  
M.S.C.E., University of New Mexico, 1977  
B.S., University of New Mexico, 1976

### Yazdani, Nur

Start Year: 2005  
Ph.D., University of Maryland, College Park, 1984  
M.S., University of Oklahoma, 1981  
B.S., University of Engineering and Technology, Dhaka, Bangladesh, 1977

## Associate Professor

### Chao, Shih-Ho

Ph.D., University of Michigan Ann Arbor, 2005  
M.S., National Chung-Hsing University, Taiwan, 1995  
B.S., National Taiwan University, Taiwan, 1993

### Kruzic, Andrew

Start Year: 1988  
Ph.D., University of California at Davis, 1984  
M.S., University of California at Berkeley, 1976  
B.S., Loyola University of Los Angeles, 1975

### Mattingly, Stephen

Start Year: 2002  
Ph.D., University of California-Irvine, 2000  
M.S., The University of Texas at Arlington, 1994  
B.S., Rice University, 1991

**Romanoschi, Stefan**

Ph.D., Louisiana State University, 1999  
M.S., Louisiana State University, 1996  
B.S., Technical University Gheorghe Asachi Iassy Romania, 1991

**Sattler, Melanie**

Start Year: 2003  
Ph.D., The University of Texas at Austin, 1996  
M.S., The University of Texas at Austin, 1993  
B.S., Texas A&M; University, 1990

**Seo, Dong-Jun**

Ph.D., Utah State University, 1988  
M.S., Massachusetts institute of Technology, 1985  
B.S., Seoul National University, 1983

**Assistant Professor**

**Choi, Hyeok**

Ph.D., University of Cincinnati, 2007  
M.S., Sungkyunkwan University, 2000  
B.S., Sungkyunkwan University, 1998

**Yu, Xinbao**

Ph.D., Case Western Reserve University, 2009  
M.S., Clarkson University, 2005  
M.S., Southeast University, 2003  
B.S., Chang'an University, 2000

**Senior Lecturer**

**Ghandehari, Mostafa**

M.Tech., University of California at Davis, 1983  
M.E.A., University of Utah, 1980  
M.S., University of Arizona, 1978  
B.A., University of Utah, 1974

**Prabakar, Srinivas**

Start Year: 2013  
Ph.D., University of Texas at Arlington, 2012  
M.E., Annamalai University, 2004  
Diploma, Annamalai University, 2003  
B.Tech., Madras University, 2000

**Razavi, Seyed Mohammad**

Start Year: 2013  
Ph.D., University of Texas at Arlington, 2013  
M.S., Sharif University of Technology, 2007  
B.S., University of Tehran, 2005

**Computer Science and Engineering**

**Professor**

**Ahmad, Ishfaq**

Start Year: 2002  
Ph.D., 1992  
M.S., Syracuse University, 1987  
B.S.E.E., University of Engineering and Technology, Lahore, Pakistan, 1985

**Chakravarthy, Upendranath**

Ph.D., University of Maryland, College Park, 1985  
M.S., University of Maryland, College Park, 1981  
B.E., Indian Institute of Science, India, 1973

**Das, Gautam**

Ph.D., University of Wisconsin, Madison, 1990  
B.Tech., IIT Kanpur, India, 1983

**Das, Sajal**

Start Year: 1999  
Ph.D., University of Central Florida, 1988

M.S., Indian Institute of Science, 1984  
B.Tech., University of Calcutta, 1983  
B.S., University of Calcutta, 1980

**Ding, Chris**

**Elmasri, Ramez**

Start Year: 1990  
M.S., Stanford University, 1980  
Ph.D., Stanford University, 1980  
B.S., Alexandria University, 1972

**Kamangar, Farhad**

Start Year: 1983  
Ph.D., The University of Texas at Arlington, 1980  
M.S., The University of Texas at Arlington, 1977  
B.S., University of Tehran, 1975

**Kumar, Mohan**

Ph.D., Indian Institute of Science, 1992  
M.Tech., Indian Institute of Science, 1985  
B.E., Bangalore University, 1982

**Kung, David**

Start Year: 1991  
Ph.D., Norwegian Institute of Technology, 1984  
B.S., Peking University, 1977  
M.S., Norwegian Institute of Technology

**Makedon, Fillia**

Ph.D., Northwestern, 1982

**Peterson, Lynn**

Start Year: 1982  
Ph.D., The University of Texas Southwestern Medical Center at Dallas, 1978  
M.S., University of Michigan, 1966  
M.A., Duke University, 1963  
B.A., Wittenberg University, 1962

**Walker, Roger**

Start Year: 1973  
Ph.D., The University of Texas at Austin, 1972  
M.S., The University of Texas at Austin, 1970  
B.S., The University of Texas at Austin, 1963

**Zaruba, Gergely**

Start Year: 2008  
Ph.D., University of Texas at Dallas, 2001  
M.S., Technical University of Budapest, 1997

**Associate Professor**

**Athitsos, Vassilis**

Start Year: 2011  
Ph.D., Boston University, 2006  
M.S., University of Chicago, 1997  
B.S., University of Chicago, 1995

**Che, Hao**

Ph.D., The University of Texas at Austin, 1998  
M.S., The University of Texas at Arlington, 1994  
B.S., Nanjing University, 1984

**Fegaras, Leonidas**

Start Year: 1996  
Ph.D., University of Massachusetts, 1993  
M.S., University of Massachusetts, 1987  
B.E.E., National Tech University of Athens, 1985

**Gao, Jean**

Ph.D., Purdue University, 2002  
M.S., Rose-Hulman Institute of Technology, 1996  
B.S., Shanghai Jiao Tong University/Shanghai Medical University, 1990

**Huang, Heng**

Start Year: 2011

**Huber, Manfred**

Ph.D., 2000

M.S., University of Massachusetts, 1993

B.S., University of Karlsruhe, 1991

**Lei, Yu**

Ph.D., North Carolina State University, 2002

M.S., Chinese Academy of Sciences, 1996

B.S., Wuhan University, 1993

**Li, Chengkai**

Start Year: 2011

Ph.D., University of Illinois at Urbana-Champaign, 2007

M.Eng., Nanjing University, 2000

B.S., Nanjing University, 1997

**Liu, Donggang**

Ph.D., North Carolina State University, 2005

M.S., Chinese Academy of Science, 2001

B.S., Beijing Institute of Technology, 1998

**Liu, Yonghe**

Ph.D., Rice University, 2003

M.S., Tsinghua University, 1999

B.S., Tsinghua University, 1998

**Weems, Bob**

Start Year: 1985

Ph.D., Northwestern University, 1984

M.S., Northwestern University, 1982

B.A., Lewis University, Illinois, 1980

**Wright, Matthew**

Start Year: 2005

Ph.D., University of Massachusetts, 2005

M.S., University of Massachusetts, 2002

**Assistant Professor**

**Csallner, Christoph**

Ph.D., Georgia Institute of Technology, 2008

M.S., Georgia Institute of Technology, 2002

Diploma Inf., Universitat Stuttgart

**Huang, Junzhou**

Start Year: 2011

Ph.D., Rutgers University, 2011

M.S., Chinese Academy of Sciences, 2003

B.Eng., Huazhong University, 1996

**Mariottini, Gian-Luca**

**Senior Lecturer**

**Brezeale, Darin**

**Khalili, Bahram**

**Levine, David**

M.S.C.S., The University of Texas at Arlington, 1975

B.S., University of Texas at Austin, 1974

**O'Dell, James Mike**

**Electrical Engineering**

**Professor**

**Alavi, Kambiz**

Start Year: 1988

Ph.D., Massachusetts Institute of Technology, 1981  
M.S., Massachusetts Institute of Technology, 1977  
B.S., Massachusetts Institute of Technology, 1972

**Bredow, Jonathan**

Start Year: 1989  
Ph.D., University of Kansas, 1989  
M.S., Iowa State University, 1980  
B.S., Kansas State University, 1977

**Butler, Donald**

Start Year: 2002  
Ph.D., 1986  
M.S., University of Rochester, 1981  
B.A.Sc., University of Toronto, 1980

**Carter, Ronald**

Start Year: 1979  
Ph.D., Michigan State University, 1971  
M.S., Iowa State University, 1964  
B.S., Iowa State University, 1962

**Celik-Butler, Zeynep**

Start Year: 2002  
Ph.D., University of Rochester, 1987  
M.S., University of Rochester, 1984  
B.S., Bogazici University, 1982

**Chiao, Jung-Chih**

Ph.D., California Institute of Technology, 1995  
M.S., California Institute of Technology, 1991  
B.S., National Taiwan University, 1988

**Devarajan, Venkat**

Start Year: 1990  
Ph.D., The University of Texas at Arlington, 1979  
M.S., Indian Institute of Technology, 1975  
B.S., Indian Institute of Technology, 1973

**Kondraske, George V**

Start Year: 1982  
Ph.D., The University of Texas at Arlington & The University of Texas Southwestern Medical Center at Dallas, 1982  
M.S., The University of Texas at Arlington & The University of Texas Southwestern Medical Center at Dallas, 1980  
B.S., University of Rochester, 1978

**Lee, Wei-Jen**

Start Year: 1986  
Ph.D., The University of Texas at Arlington, 1985  
M.S., National Taiwan University, 1980  
B.S., National Taiwan University, 1978

**Lewis, Frank L**

Start Year: 1990  
Ph.D., Georgia Institute of Technology, 1981  
M.S., University of West Florida, 1977  
B.S., Rice University, 1971

**Liang, Qilian**

Start Year: 2002  
Ph.D., University of Southern California, 2000  
M.S., Beijing University of Posts and Telecommunications, 1996  
B.S., Wuhan University, 1993

**Magnusson, Robert**

Start Year: 1984  
Ph.D., Georgia Institute of Technology, 1976  
M.S., Georgia Institute of Technology, 1973  
B.S., University of Central Florida, 1971

**Manry, Michael T**

Start Year: 1982



Ph.D., The University of Texas at Austin, 1976  
M.S., The University of Texas at Austin, 1973  
B.S., The University of Texas at Austin, 1971

**Rao, Kamisetty R**

Start Year: 1966  
Ph.D., University of New Mexico, 1966  
M.S., University of Florida, 1960  
M.S., University of Florida, 1959  
B.E., University of Madras, 1952

**Stephanou, Harry**

Start Year: 2004  
Ph.D., Purdue University, 1976  
M.S.E., Purdue University, 1973  
B.S.E.E., American University of Beirut, 1972

**Associate Professor**

**Davis, W Alan**

Start Year: 1983  
Ph.D., University of Michigan, 1971  
M.S., University of Michigan, 1964  
B.S., University of Michigan, 1963

**Dillon, William E**

Start Year: 1971  
Ph.D., The University of Texas at Arlington, 1972  
M.S., The University of Texas at Arlington, 1969  
B.S., Texas A&M; University, 1965

**Jung, Sungyong**

Ph.D., Georgia Institute of Technology, 2002  
M.S., Georgia Institute of Technology, 1993  
B.S., Yeungnam University, 1991

**Oraintara, Soontorn**

Start Year: 2001  
Ph.D., Boston University, 2000  
M.S., University of Wisconsin, 1996  
B.S., King Mongkut's Institute of Technology, 1975

**Popa, Dan**

Ph.D., Rensselaer Polytechnic Institute, 1998  
M.S., Dartmouth College, 1994  
B.A., Dartmouth College, 1993

**Tjuatja, Saibun**

Start Year: 1993  
Ph.D., The University of Texas at Arlington, 1992  
M.S., Purdue University, 1988  
B.S., The University of Texas at Arlington, 1987

**Vasilyev, Michael**

Start Year: 2011  
Ph.D., Northwestern University, Evanston, IL, 1999  
M.S., Moscow Institute of Physics and Technology, Russia, 1993

**Zhou, Weidong**

Ph.D., University of Michigan, Ann Arbor, 2001  
M.E., Tsinghua University, China, 1996  
B.S., Tsinghua University, China, 1993

**Assistant Professor**

**Davoudi, Ali**

Start Year: 2011  
Ph.D., University of Illinois, 2010  
M.Sc., The University of British Columbia, 2005  
B.Sc., Sharif University of Technology, 2003

**Iqbal, Samir**

Start Year: 2007

Ph.D., Purdue University, 2007  
B.S., NED University of Engineering and Technology, Karachi, Pakistan, 1997

**Schizas, Ioannis**

Ph.D., University of Minnesota, 2011  
M.Sc., University of Minnesota, 2007  
5-year Diploma, University of Patras, Greece, 2004

**Wetz, David A**

Start Year: 2011  
Ph.D., Texas Tech University, 2006  
M.S., Texas Tech University, 2004  
B.S., Texas Tech University, 2003

**Senior Lecturer**

**Kenarangui, Rasool**

Start Year: 1995  
Ph.D., Iowa State University, 1980  
M.S., Iowa State University, 1978  
B.S., Iowa State University, 1976

**Russell, Howard**

Start Year: 2005  
Ph.D., Santa Clara University, 1976  
M.S., Texas A & M University, 1967  
B.S., Texas A & M University, 1966

**Industrial and Manufacturing Systems Engineering**

**Professor**

**Chen, Victoria**

Ph.D., Cornell University, 1993  
M.S., Cornell University, 1991  
B.S., The Johns Hopkins University, 1988

**Corley, Herbert**

Start Year: 1971  
Ph.D., The University of Texas at Arlington, 1997  
Ph.D., University of Florida, 1971  
M.S., Georgia Institute of Technology, 1969  
B.S., Georgia Institute of Technology, 1967

**Liles, Donald**

Start Year: 1979  
Ph.D., The University of Texas at Arlington, 1978  
M.S., The University of Texas at Arlington, 1974  
B.S., The University of Texas at Arlington, 1970

**Priest, John**

Start Year: 1982  
Ph.D., The University of Texas at Arlington, 1980  
M.S., The University of Texas at Arlington, 1975  
B.S., General Motors Institute, 1973

**Associate Professor**

**Huff, Brian**

Start Year: 1994  
Ph.D., The University of Texas at Arlington, 1993  
M.S., The University of Texas at Arlington, 1989  
B.S., West Virginia University, 1985

**Imrhan, Sheik**

Start Year: 1986  
Ph.D., Texas Tech University, 1983  
M.S., University of Alabama, 1981  
B.S., University of Guyana, 1973

**Jones, Erick**

Ph.D., University of Houston, 2003

M.S., University of Houston, 1996  
B.S., Texas A&M University, 1993

**Rogers, Jamie**

**Rosenberger, Jay**

Start Year: 2003  
Ph.D., Georgia Institute of Technology, 2001  
M.S., University of California-Berkeley, 1997  
B.S., Harvey Mudd, 1996

**Assistant Professor**

**Ferreira, Susan**

Ph.D., Arizona State University, 2002  
M.S., Arizona State University, 1990  
B.S., Arizona State University, 1987

**Zeng, Li**

Ph.D., University of Wisconsin - Madison, 2009  
M.S., University of Wisconsin - Madison, 2007  
M.S., Tsinghua University, China, 2004  
B.S., Tsinghua University, China, 2002

**Senior Lecturer**

**Boardman, Bonnie**

Start Year: 1999  
Ph.D., University of Arkansas, 1997  
M.S., Texas A&M; University, 1992  
B.S., University of Arkansas, 1991

**Materials Science and Engineering**

**Professor**

**Aswath, Pranesh**

Ph.D., Brown University, 1990  
M.S., Brown University, 1987  
B.E., Indian Institute of Science, Bangalore, India, 1985  
B.S., St. Joseph's College, Bangalore University, 1982

**Eisenbaumer, Ronald**

Start Year: 1991  
Ph.D., Stanford University, 1978  
B.S., Purdue University, 1973

**Kim, Choong-Un**

Start Year: 1996  
Ph.D., University of California at Berkeley, 1993  
M.S., Seoul National University, 1987  
B.A., Seoul National University, 1985

**Meletis, Efstathios**

Start Year: 2005  
Ph.D., GEorgia Institute of Technology, 1981  
M.S., Georgia Institute of Technology, 1978  
Diploma, National Technical University, Athens, 1975

**Associate Professor**

**Hao, Yaowu**

Start Year: 2005  
Ph.D., Massachusetts Institute of Technology, 2003  
M.S., University of Florida, 1998  
M.S., University of Science and Technology, Beijing, 1993  
B.S., University of Science and Technology, Beijing, 1990

**Koh, Seong Jin**

Ph.D., University of Illinois at Urbana-Champaign, 1998  
B.S., Seoul National University, 1987

## Assistant Professor

### Liu, Fuqiang

Start Year: 2011  
Ph.D., Pennsylvania State University, 2006  
M.S., Chinese Academy of Sciences, 2002  
B.S., Beijing University of Chemical Technologies, 1997

## Research Professor

### Chen, Nai Yuen

Start Year: 2007  
Sc.D., Massachusetts Institute of Technology, 1959  
M.Sc., Louisiana State University, 1954  
B.Sc., University of Shanghai, China, 1947

### Kirk, Wiley P

Start Year: 1999  
Ph.D., Stony Brook University, 1970  
M.S., Stony Brook University, 1967  
B.A., Washington University, 1964

### Tibbals, Harry Fred

Start Year: 2003  
Ph.D., University of Houston, 1970  
B.S., Baylor University, 1965

## Mechanical & Aerospace Engineering

### Professor

### Agonafer, Dereje

Start Year: 1999  
Ph.D., Howard University, 1984  
M.S., Howard University, 1978  
B.S., University of Colorado, 1972

### Armanios, Erian

Start Year: 2009  
Ph.D., Georgia Institute of Technology, 1985  
M.S., University of Cairo, 1979  
B., University of Cairo, 1974

### Chan, Wen

Start Year: 1988  
Ph.D., Purdue University, 1979  
M.S., Tennessee Technological University, 1972  
B.S., National Cheng Kung University, 1969

### Haji-Sheikh, Abdolhossein

Start Year: 1966  
Ph.D., University of Minnesota, 1965  
M.A., University of Michigan, 1961  
M.S., University of Michigan, 1959  
B.S., University of Tehran, Iran, 1956

### Hullender, David

Start Year: 1970  
Ph.D., Massachusetts Institute of Technology, 1970  
M.S., Oklahoma State University, 1967  
B.S., Oklahoma State University, 1966

### Lawrence, Kent

Start Year: 1961  
Ph.D., Arizona State University, 1965  
M.S., Texas Tech University, 1960  
B.S., Texas Tech University, 1959

### Lu, Frank

Start Year: 1987  
Ph.D., Pennsylvania State University, 1988  
M.S.E., Princeton University, 1983

M.A., Cambridge University, 1980  
B.A., Cambridge University, 1976

**Luo, Cheng**

Ph.D., University of California, Berkeley, 2000  
M.S., University of Houston, 1997  
B.S., Hunan University, 1993

**Nomura, Seiichi**

Start Year: 1982  
D.Eng., University of Tokyo, 1982  
Ph.D., University of Delaware, 1980  
M.S., University of Tokyo, 1977  
B.S., University of Tokyo, 1974

**Wang, Bo**

Start Year: 1983  
Ph.D., University of Virginia, 1974  
M.S., University of Missouri, 1970  
B.S., National Taiwan University, 1967

**Wilson, Donald**

Start Year: 1968  
Ph.D., The University of Texas at Arlington, 1973  
M.S., University of Tennessee, 1965  
B.S., Georgia Institute of Technology, 1961

**Woods, Robert**

Start Year: 1974  
Ph.D., Oklahoma State University, 1971  
M.S., Oklahoma State University, 1970  
B.S., Southern Methodist University, 1968

**You, Seung**

Start Year: 1990  
Ph.D., University of Minnesota at Minneapolis, 1990  
M.S., University of Minnesota at Minneapolis, 1986  
B.S., Seoul National University, 1982

**Associate Professor**

**Chudoba, Bernd**

Ph.D., Cranfield University, England, 2001  
M.S., Cranfield University, England, 1995  
Dipl. Ing., University of Applied Sciences FH, Aachen, Germany, 1994

**Dancila, Dragos**

Start Year: 2011  
Ph.D., Georgia Institute of Technology, 1998  
M.S., Georgia Institute of Technology, 1992  
Aeronautical Engineer, Polytechnic Institute Bucharest, 1986

**Dennis, Brian**

Ph.D., Pennsylvania State University, 2000  
M.S., Pennsylvania State University, 1997  
B.S., Pennsylvania State University, 1995

**Dogan, Atilla**

Ph.D., University of Michigan, 2000  
M.S., University of Michigan, 1998  
M.S., Istanbul Technical University, 1994  
B.S., Istanbul Technical University, 1991

**Huang, Haiying**

Ph.D., Georgia Institute of Technology, 1998  
M.S., Georgia Institute of Technology, 1997  
B.S., Beijing University of Aeronautics and Astronautics, 1991

**Makeev, Andrew**

**Meng, Desheng**

**Shiakolas, Panayiotis**

Start Year: 1996

Ph.D., The University of Texas at Arlington, 1992  
M.S., The University of Texas at Austin, 1988  
B.S., The University of Texas at Austin, 1986

**Subbarao, Kamesh**

Ph.D., Texas A&M; University, 2001  
M.S., Indian Institute of Science, 1995  
B.Tech., Indian Institute of Technology, 1993

**Tong, Albert**

Start Year: 1983  
Ph.D., Carnegie-Mellon University, 1983  
M.S., California Institute of Technology, 1978  
B.S., University of Hawaii, 1977

**Assistant Professor**

**Adnan, Ashfaq**

**Bowling, Alan**

Start Year: 2011  
Ph.D., Stanford University, 1998  
M.S., Stanford University, 1993  
B.S., The University of Texas at Austin, 1988

**Harris, Robert**

Ph.D., UT Austin, 2008  
M.S., Stanford, 2000  
B.S., UT Austin, 1994

**Jain, Ankur**

Ph.D., Stanford University, 2007  
M.S., Stanford University, 2003  
B.Tech., Indian Institute of Technology (IIT), Delhi, 2001

**Kim, Daejong**

Start Year: 2011  
Ph.D., University of Texas at Austin, 2004  
M.S., Seoul National University, Korea, 1993  
B.S., Seoul National University, Korea, 1991

**Maddalena, Luca**

Start Year: 2011  
Ph.D., Virginia Polytechnic Institute and State University, 2007  
M.S.E., Laurea Degree in Aerospace Engineering, Politecnico di Milano (Italy), 2004

**Massa, Luca**

Start Year: 2011  
Ph.D., Mississippi State University, 2000  
M.S., Politecnico di Bari & Mississippi State University, 1997  
B.S.M.E., Politecnico di Bari, 1996

**Moon, Hyejin**

Start Year: 2007  
Ph.D., University of California, Los Angeles, 2005  
M.S., Sogang University, 1997  
B.S., Sogang University, 1995

**Shin, Donghyun**

Ph.D., Texas A&M University, 2011  
M.S., Ohio University, 2008  
B.S., Hanyang University, 2006

**Yang, Bo**

Ph.D., University of Houston, 1998  
M.S., University of Houston, 1996  
B.S., University of Science and Technology of China, 1992

**Professor Emeritus**

**Goolsby, Roger**

Ph.D., University of California at Berkeley, 1971  
M.S., University of California at Berkeley, 1968

B.S., The University of Texas at Arlington, 1967

### Senior Lecturer

#### Han, Zhen

Ph.D., Beijing University, 1989  
M.S., Beijing University, 1985  
B.S., Xian Jiaotong University, 1982

#### Kumar, Ratan

#### Michael, Nancy

#### Wimberly, Clarence

Start Year: 2011  
Ph.D., Texas A&M; University, 1968  
M.S., The University of Alabama, 1965  
B.S., Texas A&M; University, 1961

### Lecturer

#### Harris, Cecil

## College of Liberal Arts

### Art + Art History

#### Professor

#### Hower, Robert

Start Year: 2005  
M.F.A., Cranbrook Academy of Art, 1975  
B.F.A., University of Nebraska, Omaha, 1973

#### Huerta Lozano, Benito

Start Year: 1997  
M.A., New Mexico State University, 1978  
B.F.A., University of Houston, 1976

#### Keens, David

Start Year: 1974  
M.F.A., University of Washington, 1974  
B.A., California State University at Long Beach, 1972

#### North, Kenda

Start Year: 1989  
M.F.A., State University of New York at Buffalo, 1976  
B.A., Colorado College, 1972

#### Palmeri, Nancy

Start Year: 1996  
M.F.A., University of Nebraska, 1993  
B.F.A., Southern Illinois University, 1989

#### Vaccaro, Mary

Start Year: 1994  
Ph.D., Columbia University, 1994  
M.A., Columbia University, 1988  
B.A., Williams College, 1986

#### Associate Professor

#### Graham, Lisa

Start Year: 1992  
M.F.A., Iowa State University, 1992  
B.F.A., University of Northern Iowa, 1989

#### Jolly, Marilyn

Start Year: 1999  
M.F.A., University of Oklahoma, 1983  
B.A., University of Science and Arts of Oklahoma, 1972

**McWilliams, R Leighton**

M.F.A., Florida State University, 1982  
B.B.A., The University of Texas at Arlington, 1978

**Ortiz, Andrew**

Start Year: 1998  
M.F.A., State University of New York at Brockport, 1995  
M.A., Humboldt State University, 1992  
B.A., Humboldt State University, 1990

**Plummer, Jack**

M.F.A., Texas Christian University, 1970  
B.F.A., Texas Christian University, 1965

**Weiss, Barton**

Start Year: 1998  
M.F.A., Columbia University, 1978  
B.A., Temple University, 1975

**Wood, Nicholas**

Start Year: 1977  
M.F.A., New York State College of Ceramics at Alfred, 1977  
B.A., San Francisco State University, 1972

**Assistant Professor**

**Alexander, Amanda**

Ph.D., Ohio State University, 2010  
M.A., Ohio State University, 2007  
B.S., Indiana University-Bloomington, 2000

**Belli, Melia**

Start Year: 2010  
Ph.D., University of California, LA, 2009  
M.A., University of London, 2005

**Ikeda, Zenas**

Start Year: 2009  
M.F.A., Kansas State University, 2008  
B.F.A., Kansas State University, 2000

**Lauster, Darryl**

M.F.A., University of Houston, 1998  
B.A., San Diego State University, 1995

**Lima, Benjamin**

**Smith, Dwain Ya'Ke**

**Terrasi, Salvatore**

**Special Member**

**Florentin, Bryan**

**Huckaby, Sedrick**

**Lapthisophon, Stephen**

**Communication**

**Associate Professor**

**Christie, Thomas**

Ph.D., University of North Carolina, 1993  
M.S., Florida State University, 1986  
M.A., Webster University, 1981  
B.A., Northeast Louisiana University, 1975

**Clark, Andrew**

Ph.D., University of Florida, 2003  
M.A.M.C., University of Florida, 2000  
B.A., Indiana University-Purdue University, 1997



**Ingram, Tom**

Start Year: 1982  
Ph.D., University of North Texas, 1982  
M.B.A., West Texas State University, 1976  
B.B.A., The University of Texas at Austin, 1975

**Jang, Chyng-Yang**

Start Year: 2004  
Ph.D., Michigan State University, 2003  
M.A., Michigan State University, 1996  
B.S., National Taiwan University, 1991

**Markham Shaw, Charla**

Start Year: 1993  
Ph.D., Louisiana State University, 1993  
M.A., Baylor University, 1987  
B.A., Angelo State University, 1986

**Megwa, Eronini**

Ph.D., University of Missouri Columbia, 1987  
M.S., Iowa State University of Science Technology, 1982  
B.S., University of Nigeria, 1978

**Assistant Professor**

**Chatterjee, Karishma**

Ph.D., The Ohio State University, 2007  
M.A., Emerson College, 2001  
M.A., Delhi University, 1998

**Harp, Dustin**

Ph.D., University of Wisconsin, Madison, 2002  
M.A., University of Texas at Austin, 1997  
B.A., Sonoma State University, CA, 1992

**Pribanic-Smith, Erika**

Ph.D., University of Alabama, 2010  
M.A., University of Alabama, 1999  
B.A., Mount Union College, 1997

**Su, Chunke**

Ph.D., University of Illinois at Urbana, Champaign, 2007  
M.A., University of Illinois at Urbana, Champaign, 2002  
B.A., Peking University, Beijing, 2000

**Tremayne, Mark**

Ph.D., University of Wisconsin, Madison, 2002  
M.A., University of Texas, Austin, 1998  
B.A., University of California, Berkeley, 1989

**Wigley, Shelley**

Ph.D., University of Oklahoma, 2007  
M.A., Oklahoma State University, 1999  
B.S., Oklahoma State University, 1991

**Senior Lecturer**

**Horton, Brian**

Ph.D., The Ohio State University, 2007  
M.A., The Ohio State University, 2004  
B.A., Ball State University, 1999

**Criminology & Criminal Justice**

**Professor**

**Del Carmen, Alejandro**

Start Year: 1996  
Ph.D., Florida State University, 1997  
M.S., Florida State University, 1993  
B.S., Florida International University, 1991

## Associate Professor

### Bing, Robert

Start Year: 1991  
Ph.D., Florida State University, 1987  
M.S., Florida State University, 1976  
B.A., College of the Holy Cross, 1975

## Assistant Professor

### Davis, Jaya

Ph.D., Prairie View A&M; University, 2010  
M.A., University of Houston – Clear Lake, 2007  
B.S., University of Houston – Clear Lake, 2005

### Jeong, Seokjin

Ph.D., Michigan State University, 2010  
M.S., Michigan State University, 2005  
B.A., Michigan State University, 2002

### Love, Tony

Ph.D., Texas A&M; University, 2012  
M.S., Texas A&M; University, 2009  
B.S., Texas A&M; University, 2004

### Rodriguez, John

Ph.D., Prairie View A&M; University, 2007  
M.S., University of Texas-Pan American, 2003  
B.S., University of Texas-Pan American, 1998

## Visiting Assistant Professor

### Copeland, Christopher

M.A., University of Texas at Arlington, 2005  
B.A., University of Texas at Arlington, 2000  
D.Sc., Dakota State University

## Senior Lecturer

### Butler, Randall

M.A., The University of Texas at Arlington, 2002  
M.L.I.S., Brigham Young University, 1989  
Ph.D., Brigham Young University, 1980  
M.A., Loma Linda University, 1973

### Carpenter, Karel

M.A., University of Texas at Arlington, 2003  
B.S., University of Texas at Dallas, 1986

### Dobbs, Rhonda

Ph.D., Florida State University, 2004  
M.A., Virginia Polytechnic Institute and State University, 1996  
B.A., University of Texas at Austin, 1993

### Eddings, Patricia

M.S., University of Florida, 2010  
B.S., Mississippi College, 1973

### Smith, Kristy

M.A., University of Texas at Arlington, 2009  
B.A., University of Texas at Arlington, 2004

### West, Royce

J.D., Texas Southern University, 2008  
B.S., Southern University, 1997

## English

### Professor

### Alaimo, Stacy

Start Year: 1994

Ph.D., University of Illinois, 1994  
M.A., University of Wisconsin, 1986  
B.A., Gustavus Adolphus College, 1985

**Morris, Timothy**

Start Year: 1990  
Ph.D., Princeton University, 1983  
B.A., Michigan State University, 1979

**Roemer, Kenneth**

Start Year: 1971  
Ph.D., University of Pennsylvania, 1971  
M.A., University of Pennsylvania, 1968  
B.A., Harvard University, 1967

**Associate Professor**

**Frank, Luanne**

Start Year: 1969  
Ph.D., University of Michigan, 1970  
M.A., 1963  
M.A., Emory University, 1959  
B.A., University of North Carolina, 1955

**Gustafson, Kevin**

Start Year: 1999  
Ph.D., University of Virginia, 1996  
M.A., University of Virginia, 1990  
B.A., Pacific Lutheran University, 1986

**Henderson, Desiree**

Start Year: 2004  
Ph.D., University of California, San Diego, 2001  
M.A., University of California, San Diego, 1997  
B.A., Occidental College, 1994

**Ingram, Penelope**

Ph.D., University of New South Wales, 1999  
M.A., Yale University, 1994  
B.A., Smith College, 1992

**Matheson, Neill**

Start Year: 2003  
Ph.D., 1995  
M.A., Johns Hopkins University, 1987  
B.A., Reed College, 1983

**Porter, Kevin**

Start Year: 2002  
Ph.D., University of Wisconsin, 2002  
M.A., Auburn University, 1997  
B.A., Trenton State College, 1992

**Richardson, Timothy**

Start Year: 2004  
Ph.D., Loyola University, Chicago, 2004  
M.F.A., Old Dominion University, 1997  
B.A., University of North Texas, 1994

**Smith, Johanna**

Start Year: 1988  
Ph.D., Claremont Graduate School, 1985  
M.A., Claremont Graduate School, 1971  
B.A., University of San Francisco, 1969

**Stodnick, Jacqueline**

Start Year: 2002  
Ph.D., University of Notre Dame, 2002  
M.Phil., University of Manchester, 1995  
B.A., University of Manchester, 1994

**Tigner, Amy**

Start Year: 2006

Ph.D., Stanford University, 2003  
M.A., University of Wyoming, 1994  
B.A., University of Wyoming, 1988

### **Assistant Professor**

#### **Arce, William**

Ph.D., University of Southern California, 2009  
M.A., University of Southern California, 2001  
B.A., University of California, Berkeley, 1997

#### **Warren, James**

Ph.D., The University of Texas at Austin, 2006  
M.A., The University of Virginia, 1999  
B.A., The University of Oklahoma, 1997

#### **Zhang, Yuejiao**

Ph.D., University of Central Florida, 2010  
M.A., Indiana University Purdue University Fort Wayne, 2005

## **History**

### **Professor**

#### **Adam, Thomas**

Start Year: 2001  
Ph.D., University of Leipzig, 1998  
M.A., University of Leipzig, 1994

#### **Demhardt, Imre**

Start Year: 2008  
Ph.D., University of Frankfurt am Main, 1995  
M.A., University of Frankfurt am Main, 1991  
M.A., University of Frankfurt am Main, 1987

#### **Fairbanks, Robert**

Start Year: 1983  
Ph.D., University of Cincinnati, 1981  
M.A., Indiana State University, 1974  
B.A., Greenville College, 1972

#### **Haynes, Sam**

Start Year: 1993  
Ph.D., University of Houston, 1988  
M.A., University of Houston, 1984  
B.A., Columbia University, 1978

#### **Kyle, Donald**

Start Year: 1984  
Ph.D., McMaster University, 1981  
B.Ed., University of Toronto, 1977  
M.A., McMaster University, 1974  
B.A., York University, 1973

#### **Morris, Christopher**

Start Year: 1992  
Ph.D., University of Florida, 1991  
M.A., University of Western Ontario, 1985  
B.A., University of Western Ontario, 1981

#### **Palmer, Stanley**

Start Year: 1973  
Ph.D., Harvard University, 1973  
A.B., Brown University, 1966

#### **Rodnitzky, Jerry**

Start Year: 1966  
Ph.D., University of Illinois, 1967  
M.A.T., University of Chicago, 1962  
B.A., University of Chicago, 1959

### **Associate Professor**

**Cawthon, Elisabeth**

Start Year: 1988  
Ph.D., University of Virginia, 1985  
M.A., University of Virginia, 1981  
B.A., Louisiana Tech University, 1978

**Cole, Stephanie**

Start Year: 1996  
Ph.D., University of Florida, 1994  
M.A., University of Florida, 1988  
B.A., The University of the South, 1984

**Dulaney, William**

Start Year: 1986  
Ph.D., Ohio State University, 1984  
M.A., Ohio State University, 1974  
B.A., Central State University, 1972

**Garrigus, John**

Start Year: 2006  
Ph.D., Johns Hopkins University, 1988  
M.A., Johns Hopkins University, 1985  
B.A., De Pauw University, 1983

**Goldberg, Joyce**

Start Year: 1982  
Ph.D., Indiana University, 1981  
M.A., Indiana University, 1973  
B.A., Indiana University, 1972

**Jalloh, Alusine**

Start Year: 1993  
Ph.D., Howard University, 1993  
M.A., Howard University, 1989  
B.A., University of Sierra Leone, 1986

**Maizlish, Stephen**

Start Year: 1979  
Ph.D., University of California at Berkeley, 1978  
M.A., University of Michigan, 1968  
B.A., University of California at Berkeley, 1967

**Narrett, David**

Start Year: 1984  
Ph.D., Cornell University, 1981  
M.A., Cornell University, 1976  
B.A., Columbia University, 1973

**Reinhardt, Steven**

Start Year: 1987  
Ph.D., Northern Illinois University, 1982  
M.A., University of Wisconsin at Madison, 1973  
B.A., Southern Illinois University, 1971

**Saxon, Gerald**

Start Year: 1987  
Ph.D., University of North Texas, 1979  
M.A., Lamar University, 1975  
B.A., Lamar University, 1973

**Trevino, Roberto**

Start Year: 1999  
Ph.D., Stanford University, 1993  
A.M., Stanford University, 1988  
M.Ed., University of Houston, 1980  
B.A., Houston Baptist University, 1970

**Assistant Professor**

**Babiracki, Patryk**

Start Year: 2009  
Ph.D., Johns Hopkins University, 2008  
M.A., Johns Hopkins University, 2004

B.A., Portland State University, 2002

**Bateman, Oliver**

Start Year: 2012

Ph.D., University of Pittsburgh, 2012

M.A., University of Pittsburgh, 2010

J.D., Valpraiso University School of Law, 2007

B.A., University of North Carolina at Chapel Hill, 2001

**Rose, Sarah**

Start Year: 2009

Ph.D., University of Illinois at Chicago, 2008

M.A., University of Chicago, 2001

B.A., University of Chicago, 1997

**Salinas, Cristina**

Start Year: 2012

Ph.D., University of Texas, 2011

**Zimmer, Kenyon**

Ph.D., University of Pittsburgh, 2010

M.A., University of Pittsburgh, 2005

B.A., Bennington College, 2002

**Professor Emeritus**

**Green, George**

Start Year: 1966

Ph.D., 1966

M.A., Florida State University, 1962

B.A., The University of Texas at Austin, 1961

**Philp, Kenneth**

Start Year: 1968

Ph.D., Michigan State University, 1968

M.A., University of Michigan, 1964

B.A., Michigan State University, 1963

**Richmond, Douglas**

Start Year: 1976

Ph.D., University of Washington, 1976

M.A., University of Washington, 1971

B.A., University of Washington, 1968

**Linguistics**

**Professor**

**Fitzgerald, Colleen**

Start Year: 2008

Ph.D., University of Arizona, 1997

M.A., University of Arizona, 1994

B.A., Loyola University, 1991

**Silva, David**

Start Year: 1993

Ph.D., Cornell University, 1992

M.A., Cornell University, 1989

A.B. MCL, Harvard University, 1986

**Associate Professor**

**Stvan, Laurel**

Start Year: 2001

Ph.D., Northwestern University, 1998

M.A., 1988

B.A., University of Illinois at Chicago, 1986

**Assistant Professor**

**Kilpatrick, Cynthia**

Start Year: 2009

Ph.D., University of California, San Diego, 2009  
M.A., University of Texas at El Paso, 2003  
B.A., Lee College, 1992

**Sabbagh, Joseph**

Start Year: 2009  
Ph.D., Massachusetts Institute of Technology, 2005  
B.A., University of California, Santa Cruz, 2000

**Witzel, Jeffrey**

Ph.D., University of Arizona, 2010  
M.A., University of Arizona, 2007  
M.A., University of Hawaii, 2002  
B.A., University of Massachusetts at Amherst, 1997

**Professor Emeritus**

**Edmondson, Jerold**

Start Year: 1981  
Dr. Phil. Habil., Technical University, Berlin, 1979  
Ph.D., University of California at Los Angeles, 1973  
M.A., University of California at Los Angeles, 1969  
B.S., Purdue University, 1963

**Senior Lecturer**

**Witzel, Naoko**

Start Year: 2010  
Ph.D., University of Arizona, 2010  
M.A., University of Arizona, 2008  
M.A., Tokyo University of Foreign Studies, 2003  
M.A., University of Hawaii, 2002  
B.A., Tokyo University of Foreign Studies, 1999

**Modern Languages**

**Associate Professor**

**Choi, Jinny**

Start Year: 1998  
Ph.D., Georgetown University, 1998  
M.A., University of California at Irvine, 1992  
B.A., The University of Texas at Arlington, 1989

**Conway, Christopher**

Start Year: 1996  
Ph.D., University of California, San Diego, 1996  
M.A., University of California, San Diego, 1994  
B.A., University of California, Santa Cruz, 1991

**Elliott, Raymond**

Start Year: 1992  
Ph.D., Indiana University, 1992  
M.A., Purdue University, 1987  
B.A., Heidelberg College, 1984

**Israel-Pelletier, Aimee**

Start Year: 1993  
Ph.D., Rutgers University, 1981  
M.A., Rutgers University, 1972  
B.A., Montclair State University, 1970

**Rings, Lana**

Start Year: 1985  
Ph.D., University of Southern California, 1985  
M.A., University of Missouri, 1973  
B.A., Washburn University of Topeka, 1970

**Ruiz-Perez, Ignacio**

Start Year: 2005  
Ph.D., University of California, Santa Barbara, 2005  
Licencia, University of Veracruz, Mexico, 1998

**Sol, Antoinette**

Start Year: 1995  
Ph.D., University of California at Los Angeles, 1994  
M.A., University of California at Los Angeles, 1990  
B.A., Loyola-Marymount University, 1975

**van Noort, Kimberly**

Ph.D., Boston University, 1995  
M.A., University of Nebraska-Lincoln, 1988  
B.A., University of Nebraska-Lincoln, 1986

**Assistant Professor**

**Austin, Amy**

Start Year: 2007  
Ph.D., Emory University, 2004  
B.A., University of Kansas, 1997

**Kania, Sonia**

Start Year: 2003  
Ph.D., University of Wisconsin at Madison, 2000  
M.A., University of Wisconsin at Madison, 1994  
B.S., University of Illinois at Urbana-Champaign, 1990

**Stewart, Christopher**

Ph.D., University of Illinois at Urbana-Champaign, 2009  
M.A., University of Illinois at Urbana-Champaign, 2004  
B.A., Furman University, 1991

**Watson, Sonja**

Start Year: 2007  
M.A., University of Tennessee, 2005  
Ph.D., University of Tennessee, 2005  
B.A., College of William and Mary, 1996

**Music**

**Department Chair**

**Bogard, Rick**

D.M.A., University of North Texas, 1994  
M.M., Baylor University, 1978  
B.M.Ed., University of Central Arkansas, 1977

**Professor**

**Burton, John**

Start Year: 2006  
D.M.A., USC, 1987  
B.M., Rice University, 1979  
M.M., Rice University, 1979

**Powell, Linton**

Start Year: 1976  
Ph.D., University of North Carolina, 1974  
M.F.A., University of Georgia, 1969  
B.M., Florida State University, 1966

**Tam, Jing**

Start Year: 1989  
M.M., New England Conservatory of Music, 1976  
B.M., New England Conservatory of Music, 1975

**Associate Professor**

**Cavanagh, Daniel**

Start Year: 2005  
M.M., University of Oregon, 2004  
B.M., St. Olaf College, 2001

**Chave, George**

Start Year: 1992



Ph.D., Washington University, 1988  
M.M., State University of New York at Binghamton, 1983  
B.M., Syracuse University, 1981

**Espinosa, Sergio**

D.M.A., The University of Iowa, 2001  
M.M., Ithaca College, 1997  
Diplome Professionnelle de Violon, Conservatoire de La Chaux-de-Fonds, 1989

**Hunt, Graham**

Start Year: 2001  
Ph.D., Duke University, 2001  
M.A., Duke University, 1996  
B.A., Amherst College, 1994

**Ishii, Timothy**

Start Year: 2004  
M.M., University of North Texas, 1991  
B.M., University of North Texas, 1987

**Jessup, Carol**

Start Year: 1978  
D.M.A., University of Michigan, 1987  
B.A., The University of Texas of the Permian Basin, 1977  
M.M., Michigan State University, 1971  
B.M., Texas Tech University, 1969

**Kenaston-French, Karen**

D.M.A., University of North Texas, 2003  
M.M., Southern Methodist University, 1986  
M.S.M., Perkins School of Theology, 1986  
B.A., West Virginia Wesleyan College, 1984

**Kim, Soo**

D.M.A., University of North Texas, 1997  
M.M., Ewha Womens University, Seoul, Korea, 1986  
B.M., Ewha Womens University, Seoul, Korea, 1984

**Lange, Diane**

Start Year: 1999  
Ph.D., Michigan State University, 1999  
M.M.Ed., Central Michigan University, 1995  
B.M.Ed., Central Michigan University, 1986

**Solomons, John**

Start Year: 1997  
D.M.A., University of North Texas, 2003  
M.M., University of Hartford, 1984  
B.M., Texas Christian University, 1982

**Stotter, Douglas**

Start Year: 2005  
D.M.A., University of Iowa, 1993  
M.M., University of Michigan, 1985  
B.M.E., University of Michigan, 1983

**Varner, Michael**

Start Year: 1981  
D.M.A., University of North Texas, 1999  
M.M., University of Michigan, 1977  
B.M.E., Bowling Green State University, 1976

**Walvoord, Martha**

Start Year: 2006  
D.M.A., University of Michigan, 2005  
M.M., University of Michigan, 2002  
B.M., Rice University, 2000

**Assistant Professor**

**Atkinson, Sean**

Ph.D., Florida State University, 2009  
M.M., Florida State University, 2006

B.M., Furman University, 2004

**Cho, Young-Hyun**

D.M.A., Eastman School of Music of the University of Rochester, 2008

Graduate Performance Diploma, Peabody Conservatory of Johns Hopkins University, 2002

M.M., Peabody Conservatory of Johns Hopkins University, 2001

B.M., Seoul National University, 1999

**Evans, Clifton**

D.M.A., The University of Houston, 2001

M.M., The University of Texas at Austin, 1997

B.M., The University of Texas at Austin, 1995

**Pool, Christopher**

D.M.A., University of Arizona, 2004

M.M., University of Oklahoma, 1997

B.M., University of Central Oklahoma, 1995

**Philosophy and Humanities**

**Professor**

**Hekman, Susan**

Start Year: 1977

Ph.D., University of Washington, 1976

M.A., University of Washington, 1973

B.A., Carleton College, 1971

**Associate Professor**

**Baker, Lewis**

Start Year: 1985

Ph.D., Louisiana State University, 1981

M.A., Louisiana State University, 1977

B.A., The University of Texas at Austin, 1975

**Burgess-Jackson, Keith**

Start Year: 1989

Ph.D., 1989

M.A., University of Arizona, 1985

M.A., Wayne State University, 1983

J.D., Wayne State University, 1983

A.B., University of Michigan, 1979

**Chiasson, Charles**

Start Year: 1983

Ph.D., Yale University, 1979

B.A., Yale University, 1974

**Nussbaum, Charles**

Start Year: 1991

Ph.D., Emory University, 1988

M.A., New York University, 1980

M.S., Julliard School of Music, 1970

B.S., Julliard School of Music, 1969

**Reeder, Harry**

Start Year: 1982

Ph.D., University of Waterloo, 1977

M.A., University of Waterloo, 1974

B.A., University of Illinois, 1968

**Williford, Kenneth**

**Assistant Professor**

**Byrd, Miriam**

Start Year: 2005

Ph.D., University of Georgia, 2001

M.A., University of North Carolina, Chapel Hill, 1992

B.A., Emory University, 1990

## Political Science

### Senior Vice Provost

#### Moore, Michael

Start Year: 1992  
Ph.D., The University of Nebraska, 1993  
M.A., The University of Nebraska, 1989  
B.A., Washburn University of Topeka, 1987

### Professor

#### Cichock, Mark

Start Year: 1985  
Ph.D., University of South Carolina, 1983  
M.A., University of South Carolina, 1979  
B.S., University of Wisconsin-Stevens Point, 1976

#### Farrar-Myers, Victoria

Start Year: 1997  
Ph.D., University at Albany, SUNY, 1997  
M.A., University of Illinois, Urbana-Champaign, 1992  
B.S., Russell Sage College; Troy, New York, 1990

#### Gutierrez, Jose

J.D., University of Houston, 1988  
Ph.D., The University of Texas at Austin, 1976  
M.A., St. Mary's University, 1968  
B.A., Texas A&I; University, 1966

#### Hekman, Susan

Start Year: 1977  
Ph.D., University of Washington, 1976  
M.A., University of Washington, 1973  
B.A., Carleton College, 1971

#### Ignagni, Joseph

Ph.D., Michigan State University, 1989  
M.A., Michigan State University, 1986  
M.S., Purdue University, 1984  
B.S., Michigan State University, 1981

#### Marshall, Thomas

Start Year: 1976  
Ph.D., University of Minnesota, 1976  
B.A., Miami University, 1971

#### Story, Dale

Start Year: 1978  
Ph.D., Indiana University, 1978  
M.A., Indiana University, 1974  
B.A., Southern Methodist University, 1972

### Associate Professor

#### Boyea, Brent

Ph.D., Rice University, 2006  
M.A., Rice University, 2002  
B.A., Case Western Reserve University, 1997

#### Clark, Jill

Start Year: 1978  
Ph.D., University of Wisconsin in Milwaukee, 1974  
M.S., University of Wisconsin in Milwaukee, 1971  
B.S., Iowa State University, 1965

#### Deen, Rebecca

Start Year: 1997  
Ph.D., Ohio State University, 1997  
M.A., Ohio State University, 1995  
B.A., Denison University, 1992

#### Saxe, Allan

Start Year: 1965  
Ph.D., University of Oklahoma, 1969  
M.A., University of Oklahoma, 1963  
B.A., University of Oklahoma, 1961

### **Assistant Professor**

#### **Bayram, Aytem**

Start Year: 2012  
Ph.D., The Ohio State University, 2011  
M.A., The Ohio State University, 2006  
MIS, North Carolina State University, 2004  
B.S., Middle East Technical University, 2002

#### **Hardt, Heidi**

Start Year: 2012  
Ph.D., Graduate Institute of International and Development Studies, Geneva, Switzerland, 2011  
M.S., London School of Economics, 2006  
B.A., University of Southern California, 2005

#### **Sasley, Brent**

Ph.D., McGill University, 2007  
M.A., University of Manitoba, 1998  
B.A., University of Manitoba, 1994

#### **Sledge, Daniel**

Start Year: 2010  
Ph.D., Cornell University, 2010  
M.S., Cornell University, 2008  
B.A., Indiana University–Bloomington, 2003

### **Associate Adjunct Professor**

#### **Little, Thomas**

Start Year: 1992  
Ph.D., Ohio State University, 1991  
M.A., Ohio State University, 1989  
B.A., University of North Carolina at Greensboro, 1986

### **Professor Emeritus**

#### **Butcher, Allan**

Ph.D., The University of Texas at Austin, 1970  
M.A., New School for Social Research, 1963  
B.A., The University of Florida, 1960

### **Senior Lecturer**

#### **Carter, Larry**

Start Year: 2012  
Ph.D., University of Oklahoma, 1997  
M.A., University of Oklahoma, 1993  
B.A., University of Oklahoma, 1989

## **Sociology and Anthropology**

### **Professor**

#### **Agger, Ben**

Start Year: 1994  
Ph.D., University of Toronto, 1976  
M.A., York University, 1974  
B.A., York University, 1973

#### **Shelton, Beth Anne**

Start Year: 1994  
Ph.D., The University of Texas at Austin, 1984  
M.A., The University of Texas at Austin, 1980  
B.S., Southern Methodist University, 1977

#### **Smith, Shelley**

Start Year: 1991

Ph.D., University of Michigan, 1990  
A.M., University of Michigan, 1985  
B.A., Southern Methodist University, 1984  
B.S., Southern Methodist University, 1984

**Young, Robert**

Start Year: 1991  
Ph.D., University of Michigan, 1982  
M.A., University of Kentucky, 1977  
B.A., Auburn University, 1972

**Associate Professor**

**Baker, Susan**

Start Year: 2005  
Ph.D., University of Texas, Austin, 1989  
M.A., University of California, Berkeley, 1986  
B.A., Trinity University, 1983

**Dunn, Dana**

Start Year: 1987  
Ph.D., University of North Texas, 1987  
M.A., The University of Texas at Dallas, 1981  
B.A., The University of Texas at Dallas, 1980

**Jacobson, Heather**

Start Year: 2006  
Ph.D., Brandeis University, 2006  
M.A., Brandeis University, 2001  
M.Phil., Trinity College, Dublin, 1995  
B.A., Carnegie Mellon University, 1993  
B.F.A., Carnegie Mellon University, 1993

**Kunovich, Robert**

Start Year: 2004  
Ph.D., 2001  
M.A., The Ohio State University, 1996  
B.A., Miami University, 1993

**Rouse, Linda**

Start Year: 1985  
Ph.D., Florida State University, 1979  
M.A., Adelphi University, 1972  
B.S., Cornell University, 1968

**Zloliniski, Christian**

Start Year: 2001  
Ph.D., University of California at Santa Barbara, 1998  
M.A., University of California at Santa Barbara, 1989  
B.A., Universidad Autonoma de Madrid, 1984

**Assistant Professor**

**Beamon, Krystal**

Ph.D., Oklahoma State University, 2005  
M.S., Oklahoma State University, 2001  
B.A., Oklahoma State University, 1999

**Cleghorn, Naomi**

Ph.D., Stony Brook University, 2006  
M.A., University of Texas at Austin, 1996  
B.A., University of Texas at Austin, 1993

**Han, Chunping**

**Khanduri, Ritu**

Start Year: 2007  
Ph.D., University of Texas at Austin, 2007  
M.Phil., Jawaharlal Nehru University, New Delhi, 1995  
M.A., Jawaharlal Nehru University, New Delhi, 1993  
B.A., University of Delhi, New Delhi, 1991

**Shelton, Jason**

Ph.D., University of Miami, 2005  
M.A., University of Miami, 2000  
B.A., Kent State University, 1998

**Speier, Amy**

Start Year: 2012  
Ph.D., University of Pittsburgh, 2005  
B.S., University of California Berkeley, 1997

**Professor Emeritus**

**Bastien, Joseph**

Start Year: 1977  
Ph.D., Cornell, 1973  
M.A., Cornell University, 1971  
M.E., State University of New York, 1963  
M.D., State University of New York, 1963  
B.A., Maryknoll College, 1958

**Eve, Raymond**

Start Year: 1976  
Ph.D., University of North Carolina at Chapel Hill, 1975  
B.A., University of North Carolina at Chapel Hill, 1969

**Lecturer**

**Ryan, Josephine**

**Theatre Arts**

**Professor**

**Gaupp, Andrew**

Start Year: 1991  
M.F.A., Trinity University, 1980  
B.A., Texas Tech University, 1976

**Lafontaine, Kim**

Start Year: 1999  
M.F.A., University of Southern California, 1981  
B.A., St. Cloud State University, 1978

**Associate Professor**

**Chapa, Joe**

Start Year: 1993  
M.F.A., University of Mississippi, 1991  
B.A., The University of Texas at Arlington, 1985

**Kongevick, Joseph**

Start Year: 1979  
M.F.A., Texas Christian University, 1976  
B.F.A., University of Wisconsin at Superior, 1974

**Maher, Dennis**

Start Year: 1982  
Ph.D., University of Wisconsin, 1980  
M.A., Memphis State University, 1974  
B.A., St. Louis University, 1972

**College of Nursing**

**Nursing**

**Associate Dean**

**Schira, Mary**

Start Year: 1992  
Ph.D., Medical College of Georgia, 1997  
M.S.N., Duke University, 1980  
B.S.N., Ohio State University, 1974

## Clinical Assistant Professor

### Baxley, Susan

Start Year: 2009  
Ph.D., The University of Texas at Arlington, 2008  
M.S.N., Texas Womanas University, 1975  
B.S.N., The University of Texas at Galveston, 1968

### Behan, Deborah

Start Year: 2011  
Ph.D., Texas Womanas University, 2010  
M.S., University of Oklahoma, 1996  
B.S.N., Southwest Missouri State University, 1993

### Carlson, Susan

Start Year: 1997  
Ph.D., University of San Diego, 2004  
M.S.N., Mississippi University for Women, 1984  
B.S.N., Loretto Heights College, 1982

### Cipher, Daisha

Start Year: 2006  
Post-Doctoral Fellowship (Statistics), University of North Texas, 1999  
Ph.D., Southern Methodist University, 1998  
M.S., University of Texas Southwestern Medical Center at Dallas, 1996  
B.A., University of Texas at Austin, 1994

### Collom, Chad

Start Year: 2011  
D.N.P., Rocky Mountain University of Health Professions, 2009  
M.S.N., University of Texas Arlington, 2004  
B.S.N., Texas Womanas University, 2000

### Crenshaw, Jeannette

Start Year: 2004  
D.N.P., Texas Tech University, 2012  
M.S.N., The University of Texas at Austin, 2001  
B.S.N., The University of Texas at Austin, 1974

### Ellis, Elizabeth

Start Year: 2012  
DNP, The University of Tennessee, 2005  
MSN, The University of Tennessee, 1995  
BSN, The University of Tennessee, 1993

### Ewing, Beverly

D.N.P., The George Washington University, 2010  
F.N.P., The George Washington University, 1997  
M.S.N. A.N.P., George Mason University, 1994

### Fowler, Christopher

Start Year: 2005  
Ph.D., University of Cincinnati, 2007  
M.S.N., University of Cincinnati, 1999  
B.S.N., Columbia Union College, 1993

### Gonzalez, John

D.N.P., Texas Womens University, 2010  
M.S.N. A.C.N.P., State University of New York at Stony Brook, 2004  
B.S.N., Texas Womens University, 2000

### Grande, Linda

Start Year: 2012  
DNP, The University of Iowa, 2008  
MSN - Pediatric Nurse Practitioner, The University of Iowa, 2003  
BSN, Maryville University, 1995

### Handy, Nancy

Start Year: 1992  
Ph.D., Texas Womanas University, 1992  
M.S.N., Texas Womanas University, 1976  
B.S.N., Baylor University, 1967

**Hart, Valerie**

Start Year: 2012  
Ph.D., The University of Texas at Arlington, 2006  
CNS, University of Arkansas for Medical Sciences, 1990  
BSN, University of Central Arkansas, 1972

**John, Lauri**

Ph.D., Texas Womens University, 1997  
M.S.N., The University of Texas Health Science Center Houston, 1990  
B.S.N., Loyola University of Chicago, 1978

**Lieser, Carol**

Start Year: 2011  
Ph.D., The University of Texas at Arlington, 2012  
MSN, The University of Texas at Arlington, 1997  
BSN, Berea College Berea, 1972

**Michael, Jacqueline**

Start Year: 2005  
Ph.D., Texas Womanas University, 2005  
MSN, University of Texas at El Paso, 1999  
WHCNP, University of Texas Southwestern Medical Center, 1993  
BSN, Texas Womanas University, 1990

**Perley, Mary Jo**

Ph.D., Ohio State University, 1986  
M.S.N., Ohio State University, 1981  
B.S.N., Texas Christian University, 1972

**Plonien, Cynthia**

Start Year: 2013  
D.N.P., Texas Christian University, 2012  
M.S.N., The University of Texas at Arlington, 1984  
B.S.N., The University of Texas at Arlington, 1978

**Taylor, Lisa**

Start Year: 2006  
Ph.D., Texas Womanas University, 2000  
Post Masteras Certificate, Texas Womanas University, FNP, 1995  
M.S.N., Texas Womanas University, 1994  
B.S.N., Texas Womanas University, 1979

**Wood, Phyllis**

Start Year: 2012  
DNP, Concordia University Wisconsin, 2010  
MSN, Baylor University, Louise Herrington School of Nursing, 2006  
BSN, Baylor University, Louise Herrington School of Nursing, 1999

**Clinical Associate Professor**

**Adams, Phyllis**

Start Year: 1995  
Post Masteras Certificate, Texas Womanas University, FNP, 1995  
Ed.D., Texas Southern University, 1989  
M.S.N., Ohio State University, 1972  
B.S.N., Dillard University, 1969

**Baker, Joy**

Start Year: 2000  
Ph.D., The Fielding Institute, 2000  
M.A., The Fielding Institute, 1996  
M.B.A., Nova University, 1985  
M.S.N., Oklahoma University, 1982  
B.S.N., Oklahoma Baptist University, 1974

**Interim Dean, College of Nursing; Associate Dean, Dept. MSN Administration, Education, and PhD Programs; Professor**

**Gray, Jennifer**

Start Year: 1989  
Ph.D., Texas Womanas University, 1997  
M.S.N., The University of Texas at Arlington, 1989  
B.S.N., Central State University, 1977



## **Interim Director, Doctor of Nursing Practice, Clinical Assistant Professor**

### **Dihigo, Sharolyn**

D.N.P., The University of Texas Arlington, 2011  
M.S.N., The University of Texas at Arlington, 1996  
B.S.N., Texas Tech University, 1989

## **Interim Director, MSN Education Program; Clinical Instructor**

### **Lindley, Marie**

Start Year: 2011  
M.S.N., Columbia University, NY, 1999  
B.S.N., William Paterson University, Wayne, NJ, 1994

## **Professor**

### **Bond, Mary Lou**

Start Year: 1989  
Ph.D., The University of Texas at Austin, 1984  
M.N., University of Pittsburgh, 1973  
B.S.N., Texas Christian University, 1962

### **Cason, Carolyn**

Start Year: 1997  
M.S.N., The University of Texas at Austin, 1972  
Ph.D., The University of Texas at Austin, 1972  
B.S.N., The University of Texas Medical Branch, 1967

### **Leflore, Judy**

Start Year: 2003  
M.S.N., The University of Texas at Arlington, 2003  
Ph.D., Texas Woman's University, 2000  
M.S. Business, Amber University, 1991  
B.S.N., The University of Texas at Arlington, 1988

### **Mancini, Mary**

## **Associate Professor**

### **Anderson, Cheryl**

Start Year: 1991  
Ph.D., Texas Woman's University, 1985  
M.N., University of California at Los Angeles, 1976  
B.S., San Diego State University, 1974  
Diploma in Nursing, Scott & White Memorial Hospital School of Nursing, 1969

### **Barnes, Donelle**

Start Year: 2007  
Ph.D., University of California, San Francisco, 1996  
M.S.N., Community Health Nursing, 1985  
B.S.N., California State University, 1979

### **Courtney, Maureen**

Start Year: 1980  
Ph.D., Texas Woman's University, 1978  
M.S.N., Texas Woman's University, 1974  
B.S.N., Texas Woman's University, 1970

### **Raudonis, Barbara**

Start Year: 1997  
Ph.D., The University of Texas at Austin, 1991  
M.S., University of Colorado, 1984  
M.S. Pathology, University of Maryland, 1978  
B.S.N., The Catholic University of America, 1978  
B.A., The College of Notre Dame of Maryland, 1974

### **Schmelzer, Marilee**

Start Year: 1988  
Ph.D., Texas Woman's University, 1987  
M.S.N., University of North Carolina, 1981  
B.S.N., Northern Michigan University, 1975

## Assistant Professor

### Adegbola, Maxine

#### Anderson, Mindi

Start Year: 2000

Ph.D., Texas Womens University, 2007

M.S.N., University of Texas at Arlington, with PNP and Educator Roles, 1997

B.S.N., Texas Christian University, 1993

#### Cazzell, Mary

Ph.D., University of Texas at Arlington, 2009

B.S.N., Marquette University, Milwaukee, WI, 1978

#### Daniel, Kathryn

Ph.D., University of Texas at Arlington, 2008

Post Master's Certificate, University of Texas at Arlington, ANP, GNP, 1997

M.S.N., Texas Woman's University, 1988

B.S.N., Baylor University, 1978

B.A., Sociology Baylor University, 1977

#### Mintz-Binder, Ronda

Start Year: 2011

D.N.P., Case Western Reserve, 2007

MN, UCLA, 1985

B.S.N., UCLA, 1982

B.A., UC Riverside, 1980

## Associate Adjunct Professor

### Hegstad, Lorraine

Adult/Geri Nurse Practitioner Post Master's Certificate, The University of Texas at Arlington, 1996

Ph.D., Arizona State University, 1981

M.S., University of Colorado, 1972

B.S.N., University of Texas Medical Branch Galveston, 1969

## Clinical Professor

### Snow, Diane

Start Year: 1979

Post Master's Certificate, The University of Texas at Arlington, PMHNP, 1995

Ph.D., Texas Woman's University, 1992

M.S.N., The University of Texas at Arlington, 1979

B.S.N., Duke University, 1967

## Assistant Clinical Professor

### Thomas, Patricia

Start Year: 2010

Ph.D., The University of Texas at Arlington, 2011

M.S.N., Vanderbilt University, 1991

B.S.N., University of Memphis, 1988

## Clinical Instructor

### Boger, Deborah

Start Year: 2012

MSN - Pediatric Nurse Practitioner, The University of Texas at Arlington, 2007

BSN, Winston-Salem State University, 2003

### Carter Griffin, Essence

Start Year: 2012

DNP - In progress, The University of Texas at Arlington, 2013

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 2011

BSN, Baylor University, 2007

### Duvall, Sara

Start Year: 2010

Emergency Nurse Practitioner, Post Master's Certificate, University of Texas at Arlington, 2007

MSN - Family Nurse Practitioner, Vanderbilt School of Nursing, 1990

BSN, David Lipscomb University, 1989

### Gillman, Paula

Start Year: 2003

Adult Geriatric Nurse Practitioner Post Master's Certificate, The University of Texas at Arlington, 1996

MSN - Clinical Nurse Specialist, The University of Texas at Arlington, 1992

BSN, Baylor University, 1984

**Harris, Marcia**

Start Year: 2012

DNP In progress, The University of Texas at Arlington, 2013

PMHNP - Post-Master's Certificate, The University of Texas at Arlington, 2010

MSN - Family Nurse Practitioner, Texas Woman's University, 2008

BSN, Grambling State University, 2002

**Haskew, Mary**

Start Year: 2012

MSN - Pediatric Nurse Practitioner, The University of Texas at Arlington, 1991

BSN, San Diego State University, 1987

**Kahveci, Kellie**

Start Year: 2008

M.S.N., The University of Texas at Arlington, 2003

Post Master's Certificate, The University of Texas at Arlington, GNP, 2003

B.S.N., The University of Texas at Arlington, 1987

**Laird, Sandra**

Start Year: 2011

DNP - In Progress, The University of Texas as Arlington, 2013

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 1996

BSN, Texas Christian University, 1992

**Major, Sayda**

Start Year: 2008

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 2006

BSN, University of Texas at Tyler, 1999

**Mcclean, Bethany**

Start Year: 2000

M.S.N., University of Texas at Arlington, 1993

B.S.N., Incarnate Word, 1983

**Mckay, Howard**

Start Year: 2007

Post Masters Certificate Acute Care Pediatric Nurse Practitioner, The University of Texas at Arlington, 2004

M.S.N., Wichita State University, 1995

B.S.N., Wichita State University, 1991

**Moake, Lindy**

Start Year: 2005

M.S.N., University of Pennsylvania, 2004

B.S.N., Texas A&M; University at Corpus Christi, 1992

**Moore, Jodie**

Start Year: 2012

MSN - Acute Care Nurse Practitioner, The University of Texas at Arlington, 2010

BSN, Texas Woman's University, 2006

**Moore, Sara**

Start Year: 2007

Post Masters Certificate Acute Care Pediatric Nurse Practitioner, University of Texas at Arlington, 2005

M.S.N., Pediatric Nurse Practitioner, University of Texas at Arlington, 2002

B.S.N., Thomas Jefferson University, 1993

**Parker, Patti**

Start Year: 1994

Post Master's Certificate, The University of Texas at Arlington, ANP/GNP, 1994

M.S.N., The University of Texas at Arlington, 1991

B.S.N., Baylor University, 1983

**Patrick, Vicki**

Start Year: 1997

Post Master's Certificate, The University of Texas at Arlington, ACNP, 1998

M.S.N., University of Colorado, 1976

B.S.N., Texas Christian University, 1972

Diploma, John Peter Smith Hospital School of Nursing, 1970

**Stevenson, Dixie**

Start Year: 2012  
MSN, The University of Texas at Arlington, 2004  
BSN, The University of Texas at Arlington, 1992

**Wright, Kimberly**

Start Year: 2011  
MSN - Family Nurse Practitioner, Arkansas State University, 2007  
BSN, University of Tennessee at Memphis, 1993

**Wyrick, Nancy**

Start Year: 2000  
M.S., University of Texas at Arlington, 1993  
B.S.N., University of Texas at Arlington, 1989

## College of Science

### Biology

#### Professor

**Campbell, Jonathan**

Start Year: 1983  
Ph.D., University of Kansas, 1982  
M.A., The University of Texas at Arlington, 1977  
B.A., University of Mississippi, 1969

**Chippindale, Paul**

Start Year: 1996  
Ph.D., The University of Texas at Austin, 1995  
M.S., University of Toronto, 1990  
B.S., University of Guelph, 1986

**Chrzanowski, Thomas**

Start Year: 1981  
Ph.D., University of South Carolina, 1981  
M.S., University of South Carolina, 1976  
B.A., Bloomfield College, 1974

**Formanowicz, Daniel**

Start Year: 1985  
Ph.D., State University of New York at Albany, 1982  
M.S., Adelphi University, 1978  
B.S., State University of New York at Fredonia, 1976

**Frye, Bernard**

Start Year: 1962  
Ph.D., University of Oklahoma, 1972  
M.S., Baylor University, 1961  
B.S., Baylor University, 1960

**Grover, James**

Start Year: 1993  
Ph.D., University of Minnesota, 1988  
B.A., State University of New York, 1982

**McMahon, Robert**

Start Year: 1972  
Ph.D., Syracuse University, 1972  
B.A., Cornell University, 1966

**Robinson, James**

Start Year: 1978  
Ph.D., Utah State University, 1978  
M.S., Polytechnic Institute of Brooklyn, 1971  
B.S., Polytechnic Institute of Brooklyn, 1967

#### Associate Professor

**Bernard, David**

Start Year: 1995  
Ph.D., Howard University, 1992  
B.S., Howard University, 1983

**Betran, Esther**

Ph.D. Fellowship, University of Chicago, 1999  
Ph.D. Fellowship, University of Cambridge.UK, 1997  
Ph.D., Universitat Autònoma de Barcelona (Barcelona) Spain, 1996  
M.S., Universitat Autònoma de Barcelona, 1992  
B.S., Universitat Autònoma de Barcelona, 1990

**Gough, Laura**

Start Year: 2002  
Ph.D., Louisiana State University, 1996  
B.S., Brown University, 1990

**Passy, Sophia**

Start Year: 2001  
Ph.D., Bowling Green State University, 1997  
M.S., Sofia University, 1996

**Roner, Michael**

Start Year: 2002  
Ph.D., 1986  
M.S., Miami University, 1983  
B.S., Oregon State University, 1980

**Assistant Professor**

**Christensen, Shawn**

Start Year: 2006  
Ph.D., University of Utah, 1999  
B.A., University of Colorado, 1989

**Feschotte, Cedric**

Start Year: 2004  
Ph.D., University of Paris, France, 2001

**Hurdle, Julian**

Ph.D., University of Leeds, UK, 2005  
B.Sc., University of West Indies, Barbados, 2000  
B.Sc., University of West Indies, Barbados, 2000

**Mydlarz, Laura**

Start Year: 2006  
Ph.D., University of California at Santa Barbara, 2004  
M.S., Florida Atlantic University, 1998  
B.S., Florida Atlantic University, 1996

**Pires Da Silva, Andre**

Start Year: 2005  
Ph.D., Max Planck Institute for Biophysical Chemistry and University of Goettingen, Germany, 1999  
M.S., University of Heidelberg, Germany, 1994  
B.A., Universidade de Brasilia, Brazil, 1992

**Pritham, Ellen**

Start Year: 2006  
Ph.D., University of Massachusetts, 2002  
B.A., Boston University, 1992

**Chemistry & Biochemistry**

**Professor**

**Armstrong, Daniel**

Ph.D., Texas A&M; University, 1977  
M.S., Texas A&M; University, 1974  
B.S., Washington and Lee University, 1972

**Dasgupta, Purnendu**

Start Year: 2006  
Ph.D., Louisiana State University, 1977  
M.Sc., University Burdwan, India, 1970

B.Sc., University Burdwan, India, 1968

**Dias, Rasika**

Start Year: 1992

Ph.D., University of California, Davis, 1988

B.Sc., University of Peradeniya, Sri Lanka, 1983

**Eisenbaumer, Ronald**

Start Year: 1991

Ph.D., Stanford University, 1978

B.S., Purdue University, 1973

**Lovely, Carl**

Ph.D., University of Birmingham, 1990

B.Sc., University of Birmingham, 1987

**Macdonnell, Frederick**

Start Year: 1994

Ph.D., Northwestern University, 1993

B.S., University of Vermont, 1986

**Rajeshwar, Krishnan**

Start Year: 1983

Ph.D., Indian Institute of Science, 1974

M.S., Indian Institute of Technology, 1971

B.S., University College, Trivandrum, India, 1969

**Timmons, Richard**

Start Year: 1977

Ph.D., The Catholic University of America, 1962

B.Sc., St. Francis Xavier University, Canada, 1958

**Associate Professor**

**Heo, Jongyun**

Start Year: 2006

Ph.D., University of Wisconsin-Madison, 2001

M.S., Northern Illinois University, 1997

B.S., Songang University, India, 1987

**Kroll, Peter**

Habilitation, Aachen, 2005

Ph.D. Fellowship, Cornell, 1999

Ph.D., University of Technology Darmstadt, 1996

Diploma, University of Heidelberg, 1993

B.Sc., University of Heidelberg, 1989

**Mandal, Subhrangsu**

Post Doctoral, HHMI/University of Medicine and Dentistry of New Jersey, 2005

Post Doctoral, University of Alberta, 1999

Ph.D., Indian Institute of Science, 1998

M.Sc., Kalyani University, 1992

B.Sc., Midnapore College, 1989

**Schug, Kevin**

Start Year: 2005

Ph.D., Virginia Polytechnic Institute & State University, 2002

B.S., College of William & Mary, 1998

**Assistant Professor**

**Bugarin, Alejandro**

Start Year: 2012

Ph.D., Texas A&M; University, 2011

**Chowdhury, Saiful**

Start Year: 2012

Ph.D., Washington State University, 2006

**Foss, Frank**

Start Year: 2008

Ph.D., University of Virginia, 2006

B.S., University of Richmond, 1999

**Jeon, Junha**

Start Year: 2011  
Ph.D., University of Minnesota, 2009  
M.S., Sungkyunkwan University, 2002  
B.S., Sungkyunkwan University, 2000

**Johnson-Winters, Kayunta**

Ph.D. Fellowship, University of Arizona, 2010  
Ph.D., University of Wisconsin–Milwaukee, 2006  
B.A., Alverno College, 1999

**Perera, Roshan**

Start Year: 2008  
Ph.D. Fellowship, The Scripps Research Institute, 2008  
Ph.D., University of South Carolina, 2005  
M.S., University of Tromso, Norway, 1999  
B.S., Institute of Chemistry Ceylon, 1997

**Pierce, Bradley**

Ph.D., Carnegie Mellon University, 2003  
B.S., California State University, Chico, 1996

**Professor Emeritus**

**Pomerantz, Martin**

Start Year: 1976  
Ph.D., Yale University, 1964  
M.S., Yale University, 1961  
B.S., City College of New York, 1959

**Schelly, Zoltan**

Start Year: 1977  
D.Sc., Vienna Technical University, 1967  
B.S., Vienna Technical University, 1962

**Earth and Environmental Sciences**

**Professor**

**Basu, Asish**

Start Year: 2012  
Ph.D., Univ California Davis, 1975  
M.S., University of Chicago, 1969  
M.S., Calcutta University, 1966  
B.S., Calcutta University, 1964

**Mattioli, Glen**

Ph.D., Northwestern University, Evanston, IL, 1987  
M.S., Northwestern University, Evanston, IL, 1982  
B.A., University of Rochester, Rochester, NY, 1980

**Nestell, Merlynd**

Start Year: 1969  
M.A., Princeton University, 1977  
Ph.D., Oregon State University, 1966  
M.A., University of Wisconsin, 1959  
B.A., Andrews University, 1957

**Wickham, John**

Start Year: 1992  
Ph.D., Johns Hopkins University, 1969  
B.A., Pomona College, 1960

**Associate Professor**

**Hu, Qinhong**

Start Year: 2008  
Ph.D., University of Arizona, 1995  
M.S., Chinese Academy of Sciences, 1989  
B.S., Zhejiang (Agricultural) University, 1986

**Hunt, Andrew**

Start Year: 2007  
Ph.D., Liverpool University, 1988  
B.S., Liverpool University, 1981

### **Assistant Professor**

#### **Fan, Majie**

Ph.D., University of Arizona, 2009  
M.S., University of Arizona, 2005

#### **Griffith, Elizabeth**

Start Year: 2012  
Ph.D., Stanford University, 2008  
B.S., Missouri Univ Sci & Tech, 2000

#### **Griffith, William**

Start Year: 2012  
Ph.D., Stanford University, 2008  
M.S., University Massachusetts, 2003  
B.S., William & Mary, 1999

#### **Winguth, Arne**

Start Year: 2007  
Ph.D., University of Hamburg and Max-Planck-Institut fr Meteorologie, 1997  
M.S., University of Hamburg and Max-Planck-Institut fr Meteorologie, 1992  
B.S., University of Hamburg, 1987

### **Adjunct Professor**

#### **Nestell, Galina**

Start Year: 1998  
Ph.D., All Russia Geological Research Institute, 1990  
B.S., Leningrad Mining Institute, 1979

### **Associate Adjunct Professor**

#### **Standlee, Larry**

Start Year: 2000  
Ph.D., Rice University, 1978

### **Assistant Adjunct Professor**

#### **Rowe, Harold**

Start Year: 2008  
Ph.D., Stanford University, 2002

## **Interdisciplinary Science**

### **Director**

#### **Hale, Gregory**

## **Mathematics**

### **Professor**

#### **Aktosun, Tuncay**

Start Year: 2005  
Ph.D., Indiana University, 1986  
M.S., Indiana University, 1981  
B.S., Middle East Technical University, Turkey, 1978

#### **Chen, Benito**

Start Year: 2008  
Ph.D., California Institute of Technology, 1979  
B.S., National University of Mexico, 1973

#### **Cordero-Epperson, Minerva**

Start Year: 2001  
Ph.D., University of Iowa, 1989  
M.A., University of California at Berkeley, 1983  
B.S., University of Puerto Rico, 1981



**Han, Chien-Pai**

Start Year: 1982  
Ph.D., Harvard University, 1967  
M.A., University of Minnesota, 1962  
B.A., National Taiwan University, 1958

**Jorgensen, David**

Start Year: 1998  
Ph.D., University of Nebraska, 1996  
M.S., University of Nebraska, 1991  
B.A., San Diego State University, 1989

**Kojouharov, Hristo**

Start Year: 2000  
Ph.D., University of Wyoming, 1998  
M.Sc., Sofia University, Bulgaria, 1994  
B.A., Sofia University, Bulgaria, 1993

**Korzeniowski, Andrzej**

Start Year: 1983  
Ph.D., Wroclaw University, 1978  
M.S., Wroclaw University, 1974

**Kribs, Christopher**

Start Year: 1997  
Ph.D., University of Wisconsin at Madison, 1997  
M.S.E.E., Georgia Institute of Technology, 1991  
A.B., Duke University, 1989  
B.S.E.E., Duke University, 1988

**Li, Ren-Cang**

Start Year: 2006  
Ph.D., University of California at Berkeley, 1992  
M.S., The Chinese Academy of Sciences, China, 1988  
B.S., Xiamen University, China, 1985

**Liao, Guojun**

Start Year: 1989  
Ph.D., University of California at Berkeley, 1985  
M.A., University of California at Berkeley, 1981

**Liu, Chaoqun**

Start Year: 2000  
Ph.D., University of Colorado, 1989  
M.S., Tsinghua University, 1981  
B.S., Tsinghua University, 1967

**Liu, Yue**

Start Year: 1997  
Ph.D., Brown University, 1994  
M.A., Zhejiang University, 1987

**Nestell, Merlynd**

Start Year: 1969  
M.A., Princeton University, 1977  
Ph.D., Oregon State University, 1966  
M.A., University of Wisconsin, 1959  
B.A., Andrews University, 1957

**Su, Jianzhong**

Start Year: 1990  
Ph.D., University of Minnesota, 1990  
B.S., Shanghai Jiaotong University, 1984

**Sun-Mitchell, Shan**

Start Year: 2007  
Ph.D., Indiana University, 1992  
M.S., Indiana University, 1989  
B.S., Tongji University, 1982

**Vancliff, Michaela**

Start Year: 1998  
Ph.D., University of Washington, 1993

B.S., University of Warwick, 1986

### **Associate Professor**

#### **Ambartsoumian, Gaik**

Start Year: 2006

Ph.D., Texas A & M University, 2006

M.S., Obninsk Institute of Nuclear Power Engineering, Russia, 2001

#### **Epperson, James**

Start Year: 2001

Ph.D., The University of Texas at Austin, 1996

B.S., Texas A&M; University, 1987

#### **Gornet, Ruth**

Start Year: 2002

Ph.D., Washington University at St. Louis, 1993

A.M., Washington University at St. Louis, 1989

B.A., Drake University, 1987

B.S.B.A., Drake University, 1987

#### **Grantcharov, Dimitar**

Start Year: 2010

Ph.D., University of California, Riverside, 2003

M.S., University of Sofia, Bulgaria, 1994

#### **Hawkins, Doyle**

Start Year: 1983

Ph.D., University of North Carolina, Chapel Hill, 1983

M.S., Texas A&M; University, 1977

B.S., Lamar University, 1976

#### **Jorgensen, Theresa**

Start Year: 2007

Ph.D., University of Nebraska, 2000

M.S., University of Nebraska, 1997

B.A., University of St. Thomas, 1993

#### **Shipman, Barbara**

Start Year: 1998

Ph.D., University of Arizona, 1995

B.S., University of Arizona, 1989

### **Assistant Professor**

#### **Li, Yan**

Start Year: 2009

Ph.D., University of Maryland, College Park, 2006

M.S., University of Nebraska, Lincoln, 2002

M.S., China Agriculture University, 2000

B.S., Beijing Institute of Technology, 1997

## **Physics**

### **Professor**

#### **Brandt, Andrew**

Ph.D., University of California at Los Angeles, 1992

M.S., University of California at Los Angeles, 1988

B.S., College of William and Mary, 1985

#### **Cuntz, Manfred**

Start Year: 2001

Ph.D., University of Heidelberg, 1988

M.S., University of Heidelberg, 1985

B.S., University of Heidelberg, 1980

#### **De, Kaushik**

Start Year: 1993

Ph.D., Brown University, 1988

Sc.M., Brown University, 1982

B.A., City University of New York, 1981

M.A., City University of New York, 1981

**Fry, John**

Ph.D., University of California at Riverside, 1966

M.S., Baylor University, 1962

B.S., Baylor University, 1961

**Koymen, Ali**

Start Year: 1990

Ph.D., University of Michigan, 1984

M.S., University of Michigan, 1980

B.S., University of Hacettepe, Turkey, 1977

**Liu, Ping**

Ph.D., University of Amsterdam, Netherlands, 1994

M.S., Central-South University, China, 1987

**Lopez, Ramon**

Ph.D., Rice University, 1986

M.S., Rice University, 1984

B.S., University of Illinois at Urbana–Champaign, 1980

**Musielak, Zdzislaw**

Start Year: 1999

Ph.D., University of Gdansk, 1980

M.S., 1976

B.S., A. Mickiewicz University, 1975

**Ray, Asok**

Start Year: 1984

Ph.D., Texas Tech University, 1977

M.S., Texas Tech University, 1975

M.S., Oklahoma State University, 1973

B.Tech., Calcutta University, 1969

B.S., Calcutta University, 1967

**Rubins, Roy**

Start Year: 1969

Ph.D., St. Catherine's College, Oxford University, England, 1961

B.A., St. Catherine's College, Oxford University, England, 1957

**Sharma, Suresh**

Start Year: 1977

Ph.D., Brandeis University, 1976

M.S., Meerut University, India, 1967

B.S., Agra University, India, 1965

**Weiss, Alexander**

Start Year: 1984

Ph.D., Brandeis University, 1983

B.S., City College of New York, 1976

**White, Andrew**

Start Year: 1991

Ph.D., Westfield College, University of London, 1972

B.Sc., University of Southampton, 1969

**Yu, Jaehoon**

Start Year: 2001

M.S., Korea University, 1985

B.A., Korea University, 1983

Ph.D., State University of New York at Stony Brook, 1983

**Zhang, Qiming**

Start Year: 1996

Ph.D., International School for Advanced Studies, 1989

M.S., Beijing University of Science and Technology, 1984

B.S., Sichuan University, 1982

**Associate Professor**

**Chen, Wei**

Start Year: 2006

Ph.D., Peking University, 1992  
M.S., Central South University, 1988  
B.S., Jilan University, 1985

**Fazleev, Nail**

Ph.D., Kazan State University, 1978  
M.S., Kazan State University, 1971  
B.S., Kazan State University, 1970

**Assistant Professor**

**Deng, Yue**

Ph.D., University of Michigan at Ann Arbor, 2006  
M.S., Peking University, 2001  
B.S., Peking University, 1997

**Farbin, Amir**

Start Year: 2007  
Ph.D., University of Maryland, 2003  
S.B., Massachusetts Institute of Technology, 1997

**Huda, Muhammad**

Start Year: 2009  
Ph.D., University of Texas at Arlington, 2004  
M.Sc., University of Texas as Arlington, 2002  
M.Sc., Cambridge University, UK, 1997  
B.Sc., University of Dhaka, 1996

**Jackson, Christopher**

**Mohanty, Samarendra**

**Ngai, Joseph**

Start Year: 2012  
Ph.D., University of Toronto, 2007  
M.S., University of Toronto, 2002  
B.S., University of Alberta, 2001

**Park, Sangwook**

**Psychology**

**Assistant Professor in Practice**

**Lopez, Nicolette**

Start Year: 2007  
Ph.D., University of North Texas, 2007  
M.S., University of North Texas, 2005  
B.A., University of North Texas, 2001

**Professor**

**Gatchel, Robert**

Start Year: 2004  
Ph.D., University of Wisconsin at Madison, 1973  
M.S., University of Wisconsin at Madison, 1971  
B.A., State University of New York at Stony Brook, 1969

**Ickes, William**

Start Year: 1982  
Ph.D., The University of Texas at Austin, 1973  
B.S., Brigham Young University, 1969

**Levine, Daniel**

Start Year: 1983  
Ph.D., Massachusetts Institute of Technology, 1975  
M.S., University of Chicago, 1968  
B.A., Harvard College, 1967

**Mellgren, Roger**

Start Year: 1988  
Ph.D., Indiana University, 1970  
B.A., University of Kansas, 1966

**Paulus, Paul**

Start Year: 1970  
Ph.D., University of Iowa, 1971  
M.A., University of Iowa, 1970  
B.A., Otterbein College, 1966

**Associate Professor**

**Fuchs, Perry**

Start Year: 1998  
Ph.D., The University of Texas at Arlington, 1994  
M.S., The University of Texas at Arlington, 1992  
B.S., University of Calgary, 1990

**Jensen-Campbell, Lauri**

Start Year: 2001  
Ph.D., Texas A&M; University, 1995  
M.S., Texas A&M; University, 1991  
B.A., Nyack College, 1987

**Kenworthy, Jared**

Start Year: 2005  
Ph.D., University of Southern California, 2002  
M.A., University of Southern California, 1998  
B.S., Brigham Young University, 1996

**Mann, Martha**

Start Year: 1983  
Ph.D., State University of New York at Albany, 1983  
M.A., Anna Maria College, 1977  
B.A., Anna Maria College, 1975  
R.N., Worcester City Hospital School of Nursing, 1973

**Peng, Yuan**

Start Year: 2001  
Ph.D., The University of Texas Medical Branch, 1996  
M.D., West China University of Medical Sciences, 1985

**Assistant Professor**

**Gagne, Jeffrey**

Post Doctoral, University of Wisconsin-Madison, 2010  
Ph.D., Boston University, 2007  
M.A., Boston University, 1999  
Ed.M., Boston University, 1996  
B.A., Boston College, 1995

**Perrotti, Linda**

Start Year: 2006  
Ph.D., Grad School & U. Center of the City University of New York, 2000  
M.Phil., Grad School & U. Center of the City University of New York, 1999  
B.S., Montclair State University, 1992

**Professor Emeritus**

**Cox, Verne**

Start Year: 1970  
Ph.D., University of Houston, 1964  
B.A., The University of Texas at Austin, 1960

**School of Social Work**

**Social Work**

**Assistant Professor in Practice**

**Hickerson, Jane**

Ph.D., UTA, 1997  
M.S.S.W., University of Texas at Arlington, 1994  
M.A., University of Texas at Arlington, 1981

## **Associate Dean for Research & Community Outreach**

**Bricout, John**

## **Associate Dean of Academic Affairs**

**Woody, Debra**

Start Year: 1997  
Ph.D., Virginia Commonwealth University, 1996  
M.S., Columbia University, 1981  
B.S.W., Texas Christian University, 1979

## **Professor**

**Black, Beverly**

Start Year: 2007  
Ph.D., The University of Texas at Austin, 1989  
M.S.S.W., University of Wisconsin at Madison, 1977  
B.A., University of Wisconsin at Madison, 1975

**Elliott, Doreen**

Start Year: 1988  
Ph.D., University of Wales, 1986  
B.A., University of London, 1963

**Hegar, Rebecca**

Start Year: 1997  
Ph.D., Tulane University, 1986  
M.S.S.W., The University of Texas at Austin, 1975  
B.A., The University of Texas at Austin, 1972

**Hoefler, Richard**

Start Year: 1992  
Ph.D., University of Michigan, 1989  
M.A., University of Michigan, 1984  
M.S.W., University of Kansas, 1981  
B.S.W., University of Kansas, 1979

**Hunter, Ski**

Start Year: 1971  
Ph.D., Ohio State University, 1972  
M.S.W., San Diego State College, 1968  
M.S., University of North Texas, 1960  
B.A., University of North Texas, 1958

**Jordan, Cathleen**

Start Year: 1985  
Ph.D., University of California at Berkeley, 1986  
M.S.S.W., The University of Texas at Arlington, 1979  
B.A., University of Houston, 1973

**Pillai, Vijayan**

Start Year: 1999  
Ph.D., University of Iowa, 1983  
M.A., University of Indor, India, 1972  
B.S.C., University of Trivandrum, India, 1970

**Popple, Phillip**

Start Year: 2006  
Ph.D., Washington University, 1977  
M.S.W., Washington University, 1972  
B.A., University of North Texas, 1969

**Scannapieco, Maria**

Start Year: 1996  
Ph.D., University of Minnesota, 1991  
M.S.W., Temple University, 1984  
B.S.W., California State University, 1980

## **Associate Professor**

**Basham, Randall**

Start Year: 2002

Ph.D., The University of Tennessee, Knoxville, 2002  
M.S.W., West Virginia University, 1979  
B.A., West Liberty State College, 1977

**Cobb, Norman**

Start Year: 1989  
Ph.D., University of California at Berkeley, 1986  
M.S.S.W., The University of Texas at Arlington, 1979  
M.Div., St. Paul School of Theology, 1970  
B.A., Texas Tech University, 1967

**Lehmann, Peter**

Start Year: 1995  
Ph.D., Wilfrid Laurier University, 1995  
M.S.W., Wilfrid Laurier University, 1982  
B.S.W., University of Windsor, 1979  
B.A., University of Windsor, 1978

**Mitschke, Diane**

Start Year: 2006  
Ph.D., University of Hawaii at Manoa, Honolulu, 2006  
M.S.W., University of Michigan, 2001  
B.S.W., University of Texas at Austin, 2000

**Moon, Sung**

Start Year: 2003  
Ph.D., University of Georgia, 2002  
M.S.W., University of South Carolina, 1999  
M.A., New Orleans Baptist Theological Seminary, 1997  
M.Div., Korea Baptist University, 1989  
B.A., Korea Baptist University, 1986

**Smith-Osborne, Alexa**

Start Year: 2006  
Ph.D., University of Maryland, 2006  
M.S.W., University of Maryland, 1975  
B.A., University of Virginia, 1973

**Assistant Professor**

**Adorno, Gail**

Ph.D., Florida State University, 2011  
M.S.W., Louisiana State University, 1987  
B.A., University of New Orleans, 1984

**Blakey, Joan**

Ph.D., University of Chicago, 2010  
M.S.W., University of Minnesota, 1999  
B.S., University of Minnesota, 1995

**Cronley, Courtney**

Ph.D., University of Tennessee, Knoxville, 2009  
M.S.S.W., University of Tennessee, Knoxville, 2006  
B.A., Oglethorpe University, 2002

**Madden, Elissa**

Ph.D., The University of Texas at Austin, 2010  
M.S.W., Baylor University, 2001  
B.A., Baylor University, 1997

**Praetorius, Regina**

Start Year: 2006  
Ph.D., Louisiana State University, 2006  
MSSW, University of Texas at Austin, 2000  
B.S.W., University of Texas at Austin, 1999

**Sanchez, Katherine**

Ph.D., University of Texas at Austin, 2011  
M.S.S.W., University of Texas at Austin, 1992  
B.A., University of Texas at Austin, 1989

**Small, Eusebius**

Ph.D. Fellowship, Washington University, 2011

Ph.D., University of Houston, 2009  
M.S.S.W., Columbia University, NY, 2001  
B.S.W., Ramapo College, 2000

**Watson, Larry**

Ph.D., University of Texas at Arlington, 2007  
M.S.S.W., University of Texas at Arlington, 1980  
M.A., Sam Houston State University, 1975  
B.S., Texas Tech University, 1971

**Professor Emeritus**

**Callicutt, James W**

Ph.D., Brandeis University  
M.S.S.W., University of Tennessee  
B.S., Memphis State College

**Duehn, Wayne**

Ph.D., Washington University  
M.S.W., Loyola University  
B.A., North Central College

**Gaupp, Peter G**

Ph.D., University of Pittsburgh  
M.S.S.W., University of Texas at Austin  
B.S., Southwestern University

**Hernandez, Santos**

Start Year: 1998  
Ph.D., University of Denver, 1985  
M.S.W., Our Lady of the Lake University, 1974  
B.A., Our Lady of the Lake University, 1972

**Lecca, Pedro J**

Ph.D., University of Mississippi  
M.S., Long Island University  
B.S., Fordham University

**Litrio, John J**

M.S.W., Fordham University  
B.S., Syracuse University

**Mayadas, Nazneen**

Start Year: 1972  
D.S.W., Washington University, 1970  
M.S.S.A., Case Western Reserve University, 1961  
M.A., Allahabad University, 1956  
B.A., Isabella Thoburn College, 1954

**Mindel, Charles**

Start Year: 1976  
Ph.D., University of Illinois, 1971  
A.M., University of Illinois, 1967  
A.B., State University of New York at Stony Brook, 1964

**Schoech, Richard**

Start Year: 1979  
Ph.D., The University of Texas at Arlington, 1978  
M.S.W., The University of Texas at Arlington, 1973  
B.A., The University of Texas at Austin, 1968

**Shannon, M Coleen**

Ph.D., Texas Woman's University  
M.S.W., Tulane University  
B.A., Texas Christian University

**Torgerson, Fernando G**

Ph.D., University of Minnesota  
M.S., Columbia University  
B.A., State Teachers College, Minot, North Dakota

**Watts, Thomas**

Start Year: 1974



Ph.D., Tulane University, 1976  
M.S.W., Arizona State University, 1970  
B.A., Wichita State University, 1963

## School of Urban and Public Affairs

### City and Regional Planning

#### Graduate Advisor

**Field, Karolyn**

#### Program Director

**Audirac, Ivonne**

Start Year: 2010  
M.Arch., University of Florida, 1992  
Ph.D., University of Florida, 1988  
M.Arch., Colorado State University, 1987  
Architect, Monterrey Institute of Technology (ITESM), 1978

#### Professor

**Anjomani, Ardeshir**

Start Year: 1979  
Ph.D., University of Southern California, 1979  
M., University of Southern California, 1976  
M.Arch., University of Tehran, Iran, 1968

**Becker, Barbara**

Start Year: 2008  
Ph.D., University of Texas at Austin, 1989  
M.S., University of Texas at Austin, 1983  
B.S., University of Texas at Austin, 1969

**Li, Jianling**

Ph.D., University of California at Los Angeles, 1997  
M.A., University of California at Los Angeles, 1992  
B.S., Zhongshan University, 1982

#### Associate Professor

**Arvidson, Enid**

Start Year: 1993  
Ph.D., University of Massachusetts, 1996  
M.R.P., University of Massachusetts, 1985  
B.A., University of California at Santa Barbara, 1979

**Grodach, Carl**

Start Year: 2006  
Ph.D., University of California Los Angeles, 2006  
M.S., The University of Texas Austin, 1999  
B.A., University of Arizona, 1995

#### Assistant Professor

**Bezboruah, Karabi**

Start Year: 2009  
Ph.D., University of Texas at Dallas, 2008  
L.L.B., Gauhati University, 2002  
M.B.A., Gauhati University, 2001  
B.S., Gauhati University, 1998

**Ko, Yekang**

**Whittemore, Andrew**

Ph.D., University of California, Los Angeles, 2010  
M.C.P., Massachusetts Institute of Technology, 2004  
B.A., Haverford College, 2002

### Interdisciplinary Studies

### **Assistant Director**

**Wollman, Michael**

### **Graduate Advisor**

**Field, Karolyn**

### **Assistant Professor**

**Connor, Michan**

Start Year: 2008

Ph.D., University of Southern California, 2008

B.A., Northwestern University, 1998

**Welch IV, James**

Ph.D., University of Texas at Dallas, 2009

M.A.I.S., Texas State University, 2003

B.A.I.S., Naropa University, 1992

### **Clinical Professor**

**West, Mike**

Start Year: 2002

Ed.D., Nova Southeastern University, 1987

M.S. Economics, University of North Texas, 1977

B.S. Psychology, University of North Texas, 1970

## **Public Administration**

### **Graduate Advisor**

**Field, Karolyn**

### **Program Director**

**Coursey, David**

Start Year: 2011

Ph.D., Syracuse University, Maxwell School, 1991

M.P.A., University of Alabama at Birmingham, 1987

B.A., University of Alabama at Birmingham, 1984

### **Professor**

**Cole, Richard**

Start Year: 1980

Ph.D., Purdue University, 1973

M.A., University of North Texas, 1968

B.A., University of North Texas, 1967

### **Associate Professor**

**Hissong, Rod**

Start Year: 1988

Ph.D., Rice University, 1989

M.S., Iowa State University, 1978

B.S., Iowa State University, 1974

**Martinez-Cosio, Maria**

M.A., University of California at San Diego, 2003

Ph.D., University of California at San Diego, 2003

M.Ed., University of San Diego, 1995

B.A., University of California at San Diego, 1982

**Rodriguez, Alejandro**

Ph.D., Florida International University, 1999

M.P.A., Marist College, 1991

B.S., City College of New York, 1982

### **Assistant Professor**

**Bezboruah, Karabi**

Start Year: 2009  
Ph.D., University of Texas at Dallas, 2008  
L.L.B., Gauhati University, 2002  
M.B.A., Gauhati University, 2001  
B.S., Gauhati University, 1998

**Casey, Colleen**

Start Year: 2008  
Ph.D., Saint Louis University, 2007  
M.S. Education, Southern Illinois University, 1997  
B.S. Fine Arts and Communication, Southern Illinois University, 1995

**Hamann, Darla**

Start Year: 2009  
Ph.D., University of Minnesota, 2009  
B.A., Saint Cloud State University, 1997

**Urban and Public Affairs**

**Graduate Advisor**

**Field, Karolyn**

**Program Director**

**Coursey, David**

Start Year: 2011  
Ph.D., Syracuse University, Maxwell School, 1991  
M.P.A., University of Alabama at Birmingham, 1987  
B.A., University of Alabama at Birmingham, 1984

**Professor**

**Anjomani, Ardeshir**

Start Year: 1979  
Ph.D., University of Southern California, 1979  
M., University of Southern California, 1976  
M.Arch., University of Tehran, Iran, 1968

**Cole, Richard**

Start Year: 1980  
Ph.D., Purdue University, 1973  
M.A., University of North Texas, 1968  
B.A., University of North Texas, 1967

**Associate Professor**

**Arvidson, Enid**

Start Year: 1993  
Ph.D., University of Massachusetts, 1996  
M.R.P., University of Massachusetts, 1985  
B.A., University of California at Santa Barbara, 1979

**Hissong, Rod**

Start Year: 1988  
Ph.D., Rice University, 1989  
M.S., Iowa State University, 1978  
B.S., Iowa State University, 1974

**Martinez-Cosio, Maria**

M.A., University of California at San Diego, 2003  
Ph.D., University of California at San Diego, 2003  
M.Ed., University of San Diego, 1995  
B.A., University of California at San Diego, 1982

**Rodriguez, Alejandro**

Ph.D., Florida International University, 1999  
M.P.A., Marist College, 1991  
B.S., City College of New York, 1982

**Assistant Professor**

**Casey, Colleen**

Start Year: 2008

Ph.D., Saint Louis University, 2007

M.S. Education, Southern Illinois University, 1997

B.S. Fine Arts and Communication, Southern Illinois University, 1995

**Hamann, Darla**

Start Year: 2009

Ph.D., University of Minnesota, 2009

B.A., Saint Cloud State University, 1997

Published in June of 2013. This catalog supersedes the [2012-2013 Graduate Catalog](#).

The University of Texas at Arlington [Graduate Studies](#)  
Box 19167, Arlington, Texas 76019, USA | Phone [817.272.2688](#) | Fax [817.272.1494](#)  
©2013 [The University of Texas at Arlington](#)